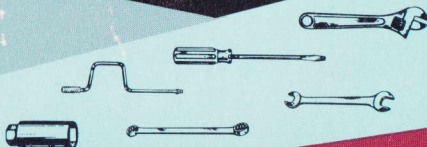


# Blackhawk®

## HAND TOOLS



## BLACKHAWK QUALITY TOOLS

Having a reputation of quality tools is earned through — Research, Testing, Quality Control, Engineering and Modern Manufacturing Facilities. Our Hand Tools are designed to be lightweight; However, consistent with the strength required for its application. The finest steels and special alloys are used to maintain the strength requirements necessary for the professional mechanic. Helping the professional mechanic to do his job easier, faster, and better is always kept in mind.

A self-contained modern manufacturing facility from Engineering to manufactured product — transfers the resulting savings on to you every time you buy a Blackhawk product.

Backed by 70 years of precision manufacturing, you know you have Quality, Dependability, and Acceptance of one of the largest hand tool companies in the world.

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## GUARANTEE

Our products are guaranteed to the original purchaser against defects in material or workmanship. Replacement of defective tools shall be made free of charge when returned to the factory for examination. Liability of any kind is limited to the amount of the purchase price paid.

Tools that have been abused or have worn out in normal usage cannot be replaced. Likewise, any tools that have been heated, ground, or subjected to hammering and unreasonable leverage cannot be replaced.



GW-9998



GW-9997



GW-9749



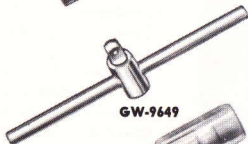
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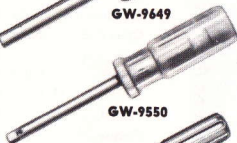
GW-9899



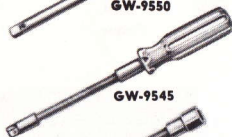
GW-9897



GW-9649



GW-9550



GW-9545



GW-9548

## MIDGET DRIVE TOOLS

### 1/4" Square Drive

These midget sockets and attachments are ideal for ignition systems and electronic jobs. They are as finely made as a swiss watch yet sturdy enough to stand up to any job expected of a 1/4" drive tool.

## REVERSIBLE RATCHET

This triple plated, positive grip ratchet is designed for versatility and strength. Fully enclosed ratchet has 60 tooth gear that allows assembling of parts in a minimum amount of space.

Number	Length	Weight
GW-9998	5"	4 oz.
GW-9998R	Ratchet Renewal Kit	

## FLEX RATCHET

Patented design 12-tooth pawl engages 20% of the 60-tooth ratchet to give stronger locking action in the direction of force. Yet, disengages fast for a free-swing ratcheting return. Short handle swing ideal for ignition and tight working areas. Rust resistant, triple plate, chrome finish. Precision made of special steel.

Number	Length	Weight
GW-9997	6"	5 oz.

## MIDGET FLEX HANDLE

Useful as a spinner. Versatile—functions at any angle to 90°. Ball and spring tension holds drive tang at selected angle.

Number	Length	Weight
GW-9749	6"	3 1/2 oz.

## CROSS BAR

Use with Midget Flex Handle to form Tee Handle.

Number	Length	Wgt.
GW-9149	3"	2 oz.

## MIDGET EXTENSION

Increase work range of tools by getting into those hard-to-get-at places.

Number	Length	Weight
GW-9899	6"	3 oz.
GW-9897	3"	2 oz.

## MIDGET SLIDE TEE HANDLE

A fine basic tool. Combines with extensions.

Number	Length	Wgt.
GW-9649	4 1/2"	3 oz.

## MIDGET SPINNER HANDLE

Use as a Spinner Handle. Has a 1/4" Drive End inserted in Handle so it can be used as an Extension Bar. Shank is 3" long.

Number	Length	Wgt.
GW-9550	6"	3 oz.

## MIDGET FLEXIBLE SPINNER

This amazing tool works easily around obstructions.

Number	Length	Wgt.
GW-9545	6 3/4"	3 oz.

## MIDGET FLEXIBLE EXTENSION

Combines a flexible shaft with regular 1/4" handles.

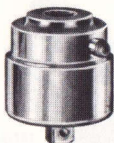
Number	Length	Wgt.
GW-9548	4"	2 oz.



## 1/4" DRIVE RATCHET ADAPTER

Swiftly converts flex handle or any drive part into a ratcheting tool with reversible action. Also available in 3/4", 1/2" and 3/8" drive.

Number	Length	Wgt.
GW-9967	1 3/8"	4 oz.



GW-9967

## 1/4" DRIVE UNIVERSAL JOINT

A proven basic tool for special hook-ups and attaches to 1/4" sq. drive handles to build tools for work at almost any angle.

Number	Length	Weight
GW-9578	1 1/4"	2 oz.



GW-9578

## CHEVROLET DISTRIBUTOR SOCKET

Handy, pronged Socket removes slotted nut in 1953 and later Chevrolet distributor mounts.

Number	Length	1 oz. Wgt.
GW-9554	1"	



GW-9554

## 6-POINT SOCKETS

Number	Size	Length	Wgt.
GW-1606	3/16"	7/8"	2 oz.
GW-1607	7/32"	7/8"	2 oz.
GW-1608	1/4"	7/8"	2 oz.
GW-1609	9/32"	7/8"	2 oz.
GW-1610	5/16"	7/8"	2 oz.
GW-1611	11/32"	7/8"	2 oz.
GW-1612	3/8"	7/8"	3 oz.
GW-1614	7/16"	7/8"	3 oz.
GW-1616	1/2"	7/8"	3 oz.



GW-1606  
to  
GW-1616

## 1/4" -DRIVE 6-POINT EXTRA DEEP SOCKETS

These midjet 1/4"-drive deep sockets are designed to work quickly and efficiently at jobs too small for tools in larger drive sizes. Accurately machined, heat treated, triple plated chrome finished for maximum durability.

Number	Size	Length	Weight
GW-1508	1/4"	2"	1 oz.
GW-1509	7/32"	2"	1 oz.
GW-1510	5/16"	2"	1 oz.
GW-1511	11/32"	2"	2 oz.
GW-1512	3/8"	2"	2 oz.
GW-1514	7/16"	2"	2 oz.



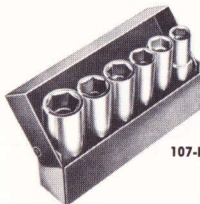
GW-1508  
to  
GW-1514

## 8-POINT SOCKETS

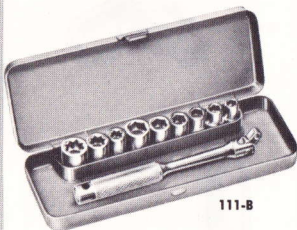
Number	Size	Length	Wgt.
GW-1208	1/4"	7/8"	3 oz.
GW-1210	5/16"	7/8"	3 oz.
GW-1212	3/8"	7/8"	4 oz.



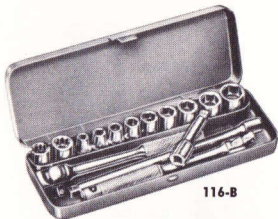
GW-1208  
to  
GW-1212



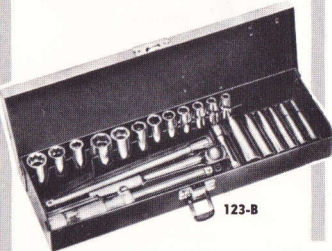
107-B



111-B



116-B



123-B

## 1/4"-DRIVE DEEP SOCKET SET

The Deep Single Hex Sockets provide necessary clearance to reach over protruding objects. Its thin, straight walls fit in limited spaces.

GW-1508	1/4"	GW-1511	11/32"
GW-1509	5/32"	GW-1512	3/8"
GW-1510	3/16"	GW-1514	7/16"
13253	Metal Tray (3 1/4" x 2 1/4")		

Set No. 107-B 7-Piece Set

## 11 PIECE — 1/4"-DRIVE SET

A Basic 1/4"-Drive Set with the basic tools for a good foundation on which to build a complete 1/4"-Drive Set.

### 6-POINT SOCKETS

GW-1608	1/4"	GW-1611	11/32"
GW-1609	5/32"	GW-1612	3/8"
GW-1610	3/16"	GW-1614	7/16"
GW-9749	6" Flex Handle		

### 8-POINT SOCKETS

GW-1208	1/4"	GW-1210	5/16"	GW-1212	3/8"
13265	Metal Box (6 13/16 x 2 5/16 x 1 1/8")				

Set No. 111-B 11-Piece Set

## 16 PIECE — 1/4"-DRIVE SET

The tools are extremely useful to mechanics in adjusting distributors, carburetors, generators — wherever fine work is done.

### 6-POINT SOCKETS

GW-1606	3/16"	GW-1611	11/32"
GW-1607	7/32"	GW-1612	3/8"
GW-1608	1/4"	GW-1614	7/16"
GW-1609	5/32"	GW-1616	1/2"
GW-1610	3/16"		

### 8-POINT SOCKETS

GW-1208	1/4"	13264	Metal Box	
GW-1210	5/16"	(6 13/16 x 2 5/16 x 1 1/8")		
GW-9899	6" Socket Extension			
GW-9897	2" Socket Extension			
GW-9998	Reversible Ratchet			
GW-9749	6" Flex Handle			

Set No. 116-B 16-Piece Set

## 23 PIECE — 1/4"-DRIVE SET

The tools in this set are indispensable for ignition systems and are ideal for electronic jobs.

### 6-POINT SOCKETS

GW-1606	3/16"	GW-1611	11/32"
GW-1607	7/32"	GW-1612	3/8"
GW-1608	1/4"	GW-1614	7/16"
GW-1609	5/32"	GW-1616	1/2"
GW-1610	3/16"		

### 6-POINT EXTRA DEEP SOCKETS

GW-1508	1/4"	GW-1511	11/32"
GW-1509	5/32"	GW-1512	3/8"
GW-1510	3/16"	GW-1514	7/16"

### 8-POINT SOCKETS

GW-1208	1/4"	GW-1210	5/16"	GW-1212	3/8"
GW-9899	6" Socket Extension				
GW-9897	2" Socket Extension				
GW-9898	Reversible Ratchet				
GW-9550	Amber Handle Spinner				
13267	Metal Box (10 x 3 x 1 1/2")				

Set No. 123-B 23-Piece Set

## 3/8" SQUARE DRIVE TOOLS

The inaccessibility of many parts in modern engines demands Tools of reduced size. The modern Blackhawk 3/8" Drive Line is completely streamlined to get you into those tight corners.

### REVERSIBLE RATCHET

A close acting, positive grip ratchet. Made of alloy steel — forged head — fully enclosed 60 tooth mechanism.

Number	Length	Wgt.
34999	7 1/2"	10 oz.
34999R Ratchet Renewal Kit.		

### FLEX HANDLE RATCHET

This sensational wrench is just the thing for those hard to reach places. The hinge joint at the ratchet head allows a 60° swing in the handle making work around manifolds, air cleaners, and generators easy when removing and installing spark plugs. Standard 3/8"-Drive No. 34999R Repair Kit fits this Ratchet.

Part No.	Drive	Length	Weight
34997	3/8"	11"	3/4 lb.

### EXTENSIONS

A wide selection of lengths is given to afford endless combinations with the Ratchets and Flex Handles.

Number	Length	Wgt.
34989	1 3/4"	2 oz.
34988	3"	3 oz.
34987	6"	4 oz.
34984	11"	6 oz.
34983	19"	8 oz.

### GRIP HANDLE

For fast preliminary tightening, this Grip Handle is a must for every mechanic. Has a colored plastic handle.

Number	Length	Weight
34976	5 1/2"	2 oz.

### SPEEDER

Nothing takes the place of a Speeder for turning down nuts in a hurry. By combining Flex Sockets with it, many awkward jobs can be completed.

Number	Length	Wgt.
34982	16"	12 oz.

### FLEX HANDLE

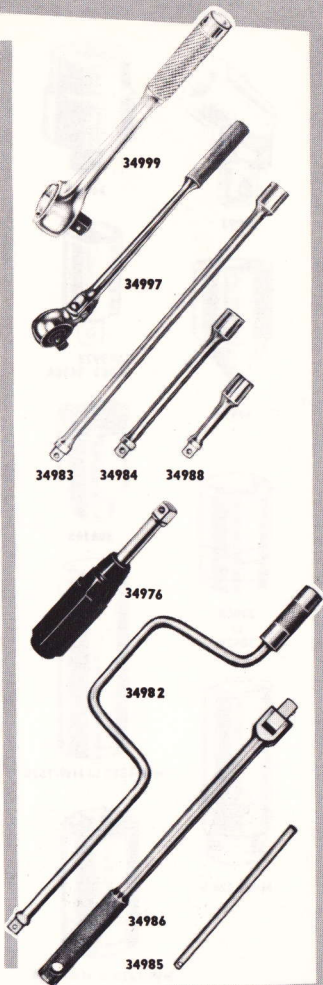
Note the knurled grip and perfect balance. A widely used tool in any kit.

Number	Length	Wgt.
34986	10"	1/2 lb.

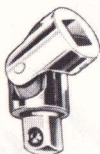
### CROSS BAR

A vital part of your Flex Handle, specially tempered to produce great strength.

Number	Length	Wgt.
34985	6"	3 oz.







34993



34967



34991



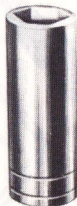
GW9972  
34963 34966



30008  
to  
30620



306345



HW-1512 to HW-1528



HW-1526 S



HW-1210 to HW-1214

### RATCHET ADAPTER

Swiftly converts flex handle, torque wrench or any drive part into a ratcheting tool with reversible action. Also available in 3/4", 1/2" and 1/4" drive.

Part No.	Length	Wgt.
34967	2"	6 oz.

### UNIVERSAL JOINT

The joint is held at any desired angle by an inner spring. The compact and short-coupled universal joint will reach into the tightest corners.

Number	Wgt.
34993	3 oz.

### ADAPTERS

Number	Size		Wgt.
	Female	Male	
GW-9972	1/4"	to 3/8" Inc.	2 oz.
34963	3/8"	to 1/4" Red.	4 oz.
34966	3/8"	to 1/2" Inc.	4 oz.

### DRAG LINK SOCKET

The screw driver type Socket for slotted nuts.

Number	Size	Wgt.
34991	1 1/16" wide	3 oz.

### TWO IN ONE SOCKET

Special 1" and 1 1/16" double broached socket for Stop Light and Oil Pressure Light switches.

Part No.	Drive	Weight
306345	3/8"	5 oz.

### 6-POINT SOCKETS

Part No.	Size Opening	Wgt.	Part No.	Size Opening	Wgt.
30008	1/4"	1 oz.	30616	1/2"	2 oz.
30010	5/16"	2 oz.	30618	7/16"	2 oz.
30612	3/8"	1 oz.	30620	5/8"	2 oz.
30614	7/16"	2 oz.			

### EXTRA DEEP 6-POINT SOCKETS

Part No.	Size Opening	Wgt.	Part No.	Size Opening	Wgt.
HW-1512	3/8"	3 oz.	HW-1520	5/8"	4 oz.
HW-1514	7/16"	3 oz.	HW-1522	1 1/16"	4 oz.
HW-1516	1/2"	3 oz.	HW-1524	3/4"	4 oz.
HW-1518	9/16"	4 oz.	HW-1526	13/16"	4 oz.
			HW-1528	7/8"	4 oz.

### RUBBER LINED EXTRA DEEP 6-POINT SOCKET

Part No.	Size Opening	Wgt.
HW-1526 S	13/16"	5 oz.

### 8-POINT SOCKETS

Part No.	Size Opening	Wgt.
HW-1210	5/16"	1 oz.
HW-1212	3/8"	1 oz.
HW-1214	7/16"	2 oz.

### 12-POINT SOCKETS

Part No.	Size Opening	Part No.	Size Opening	Part No.	Size Opening
30010A	5/16"	30018	7/16"	30024	3/4"
30012	3/8"	30020	9/16"	30026	13/16"
30014	7/16"	30022	11/16"	30028	7/8"
30016	1/2"				

### 12-POINT EXTRA DEEP SOCKETS

Part No.	Size Opening	Part No.	Size Opening	Part No.	Size Opening
30414	7/16"	30420	9/16"	30426	13/16"
30416	1/2"	30422	11/16"	30428	7/8"
30418	7/16"	30424	3/4"		

### METRIC SOCKETS

#### 3/8" Drive 6-Point Sockets

Part No.	Opening Size, MM.	Wgt.	Part No.	Opening Size, MM.	Wgt.
32009M	9	1 oz.	32014M	14	2 oz.
32010M	10	1 oz.	32015M	15	2 oz.
32011M	11	1 oz.	32017M	17	2 oz.
32012M	12	1 oz.	32019M	19	2 oz.
32013M	13	2 oz.			

### FLEX SPARK PLUG SOCKET

New design permits direct application with your standard 3/8" drive ratchet. Is lined with a neoprene insert to grip spark plug firmly for easier installation or removal.

Part No.	Size Opening	Drive	Weight
30326	13/16"	3/8"	6 oz.

### 6-POINT FLEX SOCKETS

Part No.	Size Opening	Part No.	Size Opening	Part No.	Size Opening
30212	3/8"	30218	7/16"	30222	11/16"
30214	7/16"	30220	9/16"	30224	3/4"
30216	1/2"				

### PHILLIPS SCREW DRIVER BITS

A popular tool for automotive body work and for industrial applications also. Available in three sizes.

Part No.	Bit Size	Wgt.
HW-9451	No. 2	3 oz.
HW-9452	No. 3	3 oz.
HW-9453	No. 4	3 oz.

### 3/8"-DRIVE ALLEN WRENCH BIT

Can be used on all 3/8" Drive Handles. Length 2 1/16". Replaceable bits available in all sizes.

Part No.	Size	Weight	Bit No.
HW-9449	3/16"	3 oz.	HW-9449 -1
HW-9448	7/32"	3 oz.	HW-9448 -1
HW-9447	1/4"	3 oz.	HW-9447 -1
HW-9446	5/16"	3 oz.	HW-9446 -1
HW-9445	3/8"	3 oz.	HW-9445 -1

### 3/8"-DRIVE SCREW DRIVER BITS

These bits are designed for slotted head screws.

Part No.	Blade Size	Length	Weight
HW-9505	.035" by 1/4" Blade	3 1/4"	3 oz.
HW-9506	.040" by 3/8" Blade	3 1/4"	3 oz.

### CLUTCH HEAD SCREW DRIVER BITS

This rounds out the line of Blackhawk Screw Driver Bits so that you can tackle most any job.

Number	Size	Weight
HW-9456	13/32"	3 oz.
HW-9457	1 1/4"	3 oz.



30010A to 30028



30414 to 30428

32009M to 32019M



30212 to 30224



30326



HW-9451  
to  
HW-9453



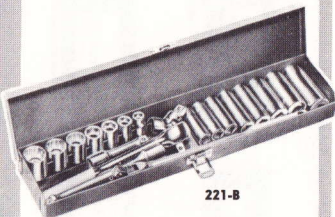
HW-9505  
HW-9506



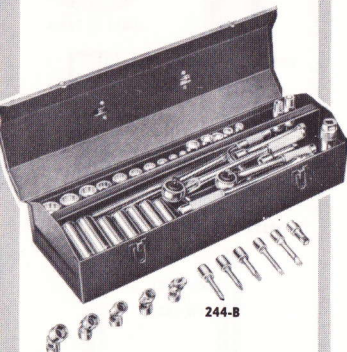
HW-9449  
to  
HW-9445



HW-9456  
HW-9457



221-B



244-B



209-B

## 21 PIECE — 3/8" -DRIVE SET

Fastest selling and most demanded because of its completeness with both regular and extra deep sockets.

### 6-POINT SOCKETS

30612	3/8"	30616	1/2"
30614	7/16"	30618	9/16"

### 6-POINT EXTRA DEEP SOCKETS

HW-1512	3/8"	HW-1518	9/16"	HW-1524	3/4"
HW-1514	7/16"	HW-1520	5/8"	HW-1526	13/16"
HW-1516	1/2"	HW-1522	11/16"		

### 12-POINT SOCKETS

30020	5/8"	30022	11/16"	30024	3/4"
34988	3" Socket Extension	34986	10" Flex Handle		
34987	6" Socket Extension	34993	Universal Joint		
34999	Reversible Ratchet	30332	Metal Box		
			(14 3/4 x 3 1/4 x 1 1/2")		

Set No. 221-B 21-Piece Set

## 44 PIECE — 3/8" -DRIVE SET

A Deluxe Set with a full range of Sockets and Attachments. Set contains 44 of the most necessary tools for general work complete in a streamlined metal box.

### 6-POINT SOCKETS

30612	3/8"	30618	9/16"	HW-1512	3/8"
30614	7/16"	30620	5/8"	HW-1514	7/16"
30616	1/2"			HW-1516	1/2"

### 12-POINT SOCKETS

30010A	5/16"	30018	9/16"	30026	13/16"
30012	3/8"	30020	5/8"	30028	3/4"
30014	7/16"	30022	11/16"		
30016	1/2"	30024	3/4"		

### 12-POINT DEEP SOCKETS

30418	9/16"	34993	Universal Joint
30420	5/8"	HW-1526S	Spark Plug Socket
30422	11/16"	34999	Reversible Ratchet
30424	3/4"	34988	3" Socket Extension
30426	13/16"	34987	6" Socket Extension
30428	7/8"	34984	11" Socket Extension
		34989	13/4" Socket Extension
		34982	19" Speeder
		34997	Flex Handle Ratchet
		34986	10" Flex Handle

### FLEX SOCKETS

30214	7/16"	HW-9451	Phillips Sc. Dr. Bits #2
30216	1/2"	HW-9452	Phillips Sc. Dr. Bits #3
30218	9/16"	HW-9453	Phillips Sc. Dr. Bits #4
30220	5/8"	HW-9505	Sc. Dr. Bits 1/4" Bl.
		HW-9506	Sc. Dr. Bits 3/8" Bl.
		30558-H	Box (19 x 6 x 4 1/4")

Set No. 244-B 44-Piece Set

## 9 PIECE — 3/8" -DRIVE DEEP SOCKET SET

The Deep Single Hex Sockets enable you to work in close places and provide the necessary clearance to hard-to-reach areas.

### 6-POINT EXTRA DEEP SOCKETS

HW-1514	7/16"	HW-1520	5/8"	HW-1526	13/16"
HW-1516	1/2"	HW-1522	11/16"	HW-1528	3/4"
HW-1518	9/16"	HW-1524	3/4"		
30750	Metal Box (7 x 3 x 1 1/4")				

Set No. 209-B 9-Piece Set



## 13 PIECE — 3/8"-DRIVE SET

A compact set with a selected range of Regular 6 Point and 12 Point Sockets packaged in a metal box.

### 6-POINT SOCKETS

30612	3/8"	30616	1/2"
30614	7/16"	30618	9/16"

### 12-POINT SOCKETS

30020	3/8"	30024	3/4"	30028	7/8"
30022	1 1/16"	30026	1 3/16"		

34999	Reversible Ratchet
34986	10" Flex Handle
34987	6" Socket Extension
13658	Metal Box (10 x 3 3/4 x 1 1/2")

Set No. 213-B 13-Piece Set



213-B

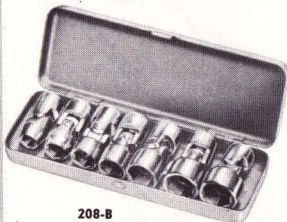
## 8 PIECE — 3/8"-DRIVE FLEX SOCKET SET

A complete set of Flex Sockets that are indispensable when working in restricted areas.

### 6-POINT FLEX SOCKETS

30212	3/8"	30220	5/8"
30214	7/16"	30222	1 1/16"
30216	1/2"	30224	3/4"
30218	9/16"		
13657	Metal Box (6 13/16 x 2 5/16 x 1 1/8")		

Set No. 208-B 8-Piece Set



208-B

## 14 PIECE — 3/8"-DRIVE METRIC SET

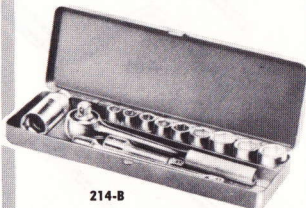
A Quality Built Metric Set that is a must for mechanics working on foreign cars.

### 6-POINT SOCKETS

Number	M.M. Size	Number	M.M. Size
32009M	9	32014M	14
32010M	10	32015M	15
32011M	11	32017M	17
32012M	12	32019M	19
32013M	13		

HW-15265	Spark Plug Socket
34988	3" Extension
34987	6" Extension
34999	Fully Enclosed Ratchet
13658	Sturdy Metal Box (10 x 3 3/4 x 1 1/2")

Set No. 214-B 14-Piece Set



214-B

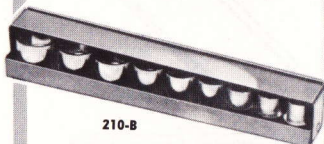
## 10 PIECE — 3/8"-DRIVE METRIC TRAY SET

Unique 10 Piece Metric Socket Tray Set with Flip Lock Tray Feature.

### 6-POINT SOCKETS

Number	M.M. Size	Number	M.M. Size
32009M	9	32014M	14
32010M	10	32015M	15
32011M	11	32017M	17
32012M	12	32019M	19
32013M	13	13330	Metal Tray (7 3/8 x 1 x 1 1/2")

Set No. 210-B 10-Piece Set



210-B

## REVERSIBLE RATCHET

Patented design. Years of engineering and development brings the toughest, most rugged ratchet yet designed. Check these features:

- 60 Tooth action — permits ratcheting in restricted areas.
- 12 Tooth pawl — designed for compression engagement. Pressure is applied directly to ratchet head rather than individual teeth.
- Simplicity — working unit can be replaced in a jiffy for instant ratchet renewal when mechanism becomes worn out.

Number	Length	Wgt.
49999	10"	1 lb.
49998	15"	1 lb. 4 oz.
49999R	Ratchet Renewal Kit.	

## 1/2"-DRIVE FLEX RATCHET

This 1/2" Drive Flex-Ratchet has the famous Blackhawk 12-Tooth Pawl and 60-Tooth fully enclosed frame for positive wedge action. This tool gives extra leverage and flexibility for those hard-to-reach stubborn nuts and bolts. The hinged joint provides a full 180° swing of the wrench head. Standard 1/2"-Drive No. 49999R Repair Kit fits this ratchet.

Part No.	Drive	Length	Weight
49995	1/2"	11'	19 oz.

## FLEX HANDLES

The drive end on these newly designed knurled grip Flex Handles can be set in many different positions, thereby enabling work to be performed in inaccessible places.

Number	Length	Wgt.
49988	18"	2 lbs.
49985	15"	1 lb. 11 oz.

## CROSS BAR

Especially designed to operate with each of the above Flex Handles.

Number	Length	Wgt.
49986	8"	4 oz.

## SPEEDER

The original speed-up Tool. Nothing takes the place of a Speeder for quick work.

Number	Length	Wgt.
49992	18"	1 lb. 12 oz.

## EXTENSIONS

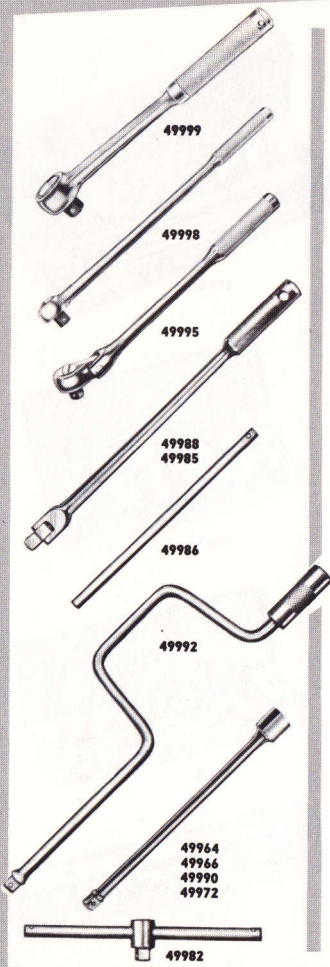
These sizes, alone or in combination, extend your reach an extra 2" to 36" in steps of 2" as you please.

Number	Length	Wgt.
49964	1 15/16"	4 oz.
49966	5"	10 oz.
49990	10"	16 oz.
49972	19"	27 oz.

## SLIDE TEE HANDLE

This Slide Tee Handle can be used as an offset handle by moving head to either end of bar. Head is kept securely in any position by a ball and tension spring arrangement in head.

Number	Length	Wgt.
49982	9"	1 lb.



## RATCHET ADAPTER

This versatile Blackhawk Ratchet Adapter functions smoothly and efficiently. Its ingenious design offers the remarkable facility of swiftly converting a flex handle, torque wrench or any drive part into an unusually effective ratcheting tool, with reversible action.

Number	Length	Wgt.
49973	2 1/8"	10 oz.



49973

## DRAG LINK SOCKETS

A sturdy screw driver type Socket with bits in two widths for drag links, drain plugs, slotted nuts and screws. Will fit any standard 1/2" square drive tool.

Number	Size	Wgt.
49979	1 5/16" Wide	3 oz.

49979



## ADAPTERS

An invaluable addition to any mechanic's tool set for the interchange of different drive handles.

Number	Sizes		Wgt.
	Female	Male	
34965	1/2"	to 3/8" Red.	3 oz.
69992	1/2"	to 3/4" Inc.	6 oz.

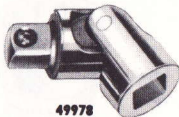


34965  
69992

## UNIVERSAL JOINT

Compact, sturdy and easy working. A Universal Joint designed for difficult corners.

Number	Length	Wgt.
49978	2 7/16"	10 oz.

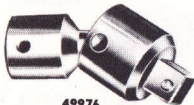


49978

## IMPACT UNIVERSAL JOINT

This 1/2"-Drive Impact Universal Joint will provide flexibility when working in tight restricted areas. The special "Ball Type Joint" gives this Universal Joint the added strength necessary for its rugged application.

Part No.	Size	Length	Weight
49976	1/2"	2 13/16"	3 oz.



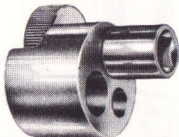
49976

## ECCENTRIC STUD EXTRACTOR

Extractor will remove or install 1/4" to 3/4" stud sizes. Uniquely constructed to permit gripping wheel to lay flush on flat surfaces to engage stud at lowest point if required without damage to stud threads. Drive socket extends through entire housing to prevent binding. Consists of 3 replaceable and easy to disassemble parts.

Number	Wgt.
49980	8 oz.

49980-1 Replacement Cam for 49980



49980



Extra strength thin wall design for work where there's minimum clearance . . . Available in 12, 8 and 6-point design . . . All tools have a mirror chrome finish.



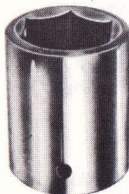
40612  
to  
40628



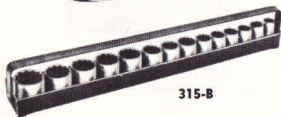
40212  
to  
40226



40114  
to  
40140



UW-1612  
to  
UW-1636



315-B

## 6-POINT SOCKETS

Part No.	Size Opening	Wgt.	Part No.	Size Opening	Wgt.
40612	3/8"	1 oz.	40620	5/8"	2 oz.
40614	7/16"	1 oz.	40622	1 1/16"	2 oz.
40616	1/2"	1 oz.	40624	3/4"	2 oz.
40618	5/8"	2 oz.	40628	7/8"	3 oz.

## 8-POINT SOCKETS

Number	Size	Wgt.	Number	Size	Wgt.
40212	3/8"	2 oz.	40220	5/8"	3 oz.
40214	7/16"	3 oz.	40222	1 1/16"	3 oz.
40216	1/2"	3 oz.	40224	3/4"	4 oz.
40218	5/8"	3 oz.	40226	13/16"	4 oz.

## 12-POINT SOCKETS

Number	Size	Wgt.	Number	Size	Wgt.
40114	7/16"	1 oz.	40125	25/32"	2 oz.
40116	1/2"	2 oz.	40126	13/16"	3 oz.
40118	5/8"	2 oz.	40128	7/8"	3 oz.
40119	15/32"	2 oz.	40130	15/16"	4 oz.
40120	5/8"	2 oz.	40132	1"	4 oz.
40121	21/32"	2 oz.	40134	1 1/16"	4 oz.
40122	1 1/16"	2 oz.	40136	1 1/8"	6 oz.
40124	3/4"	2 oz.	40140	1 1/4"	7 oz.

## 6-POINT IMPACT SOCKETS

Made from special Alloy Steel and with black, Parkerized finish, these tough Power Sockets are designed to stand up under punishing use with Power and Impact Wrenches.

Number	Size	Wgt.	Number	Size	Wgt.
UW-1612	3/8"	2 oz.	UW-1626	13/16"	3 oz.
UW-1614	7/16"	2 oz.	UW-1628	7/8"	3 oz.
UW-1616	1/2"	2 oz.	UW-1630	15/16"	5 oz.
UW-1618	5/8"	2 oz.	UW-1632	1"	6 oz.
UW-1620	3/4"	2 oz.	UW-1634	1 1/16"	9 oz.
UW-1622	1 1/16"	3 oz.	UW-1636	1 1/8"	10 oz.
UW-1624	3/4"	3 oz.			

## 15 PIECE SOCKET SET

This is a complete, compact, low priced Socket Set furnished in a metal carrying tray.

## 12-POINT SOCKETS

40114	7/16"	40122	1 1/16"	40130	15/16"
40116	1/2"	40124	3/4"	40132	1"
40118	5/8"	40125	25/32"	40136	1 1/8"
40119	15/32"	40126	13/16"	40140	1 1/4"
40120	5/8"	40128	7/8"		

Number	15277	Metal Tray	Wgt.
315-B	15 Pc. Set		5 lbs.

## EXTRA DEEP 6-POINT SOCKETS

These sockets are made from Special Alloy Steel and heat treated for maximum strength and durability. Thin wall design provides easier access to minimum clearance areas. Triple plated chrome finish.

Part No.	Size	Weight	Part No.	Size	Weight
40416	1/2"	5 oz.	40426	13/16"	5 oz.
40418	9/16"	5 oz.	40428	7/8"	6 oz.
40420	5/8"	5 oz.	40430	15/16"	7 oz.
40422	11/16"	5 oz.	40432	1"	7 oz.
40424	3/4"	5 oz.	40434	1 1/16"	10 oz.

## EXTRA DEEP 12-POINT SOCKETS

Part No.	Size	Wgt.	Part No.	Size	Weight
40316	1/2"	5 oz.	40328	7/8"	6 oz.
40318	9/16"	5 oz.	40330	15/16"	7 oz.
40320	5/8"	5 oz.	40332	1"	7 oz.
40322	11/16"	5 oz.	40334	1 1/16"	10 oz.
40324	3/4"	5 oz.	40336	1 1/8"	10 oz.
40326	13/16"	5 oz.			

## SPARK PLUG SOCKET

This special 1/2" Drive Socket is lined with a neoprene insert to grip the Spark Plug Firmly for easier installation or removal.

Part No.	Drive	Size Opening	Weight
40326S	1/2"	13/16"	5 oz.

## 6-POINT DEEP COTTON SPINDLE SOCKET

Specially designed and heat treated Alloy Steel insures long rugged use.

Part No.	Drive	Length	Weight
40436S	1/2"	6 1/4"	2 lbs.

## EXTRA DEEP 6-POINT IMPACT SOCKETS

Made from Special Alloy Steel, these tough but light weight Power Sockets are designed to stand up under punishing use on Power Tools.

Part No.	Size	Weight	Part No.	Size	Weight
UW-1512	3/8"	4 oz.	UW-1524	3/4"	7 oz.
UW-1514	7/16"	4 oz.	UW-1526	13/16"	7 oz.
UW-1516	1/2"	4 oz.	UW-1528	7/8"	9 oz.
UW-1518	9/16"	4 oz.	UW-1530	15/16"	10 oz.
UW-1520	5/8"	4 oz.	UW-1532	1"	11 oz.
UW-1522	11/16"	5 oz.			

## 9-PIECE DEEP SOCKET SET

### Extra Deep 12-Point Sockets

40318	9/16"	40326	13/16"	
40320	5/8"	40328	7/8"	31061 Metal Box
40322	11/16"	40330	15/16"	(9" x 3 3/8" x 1 1/2")
40324	3/4"	40332	1"	
Part No.				Wgt.
309-B		9-Piece Set		4 lbs.

## DRAWN SPARK PLUG SOCKETS

Low cost spark plug Sockets for service station use. Cross Bar with each Socket.

Part No.	Hex. Spark Plug Size	Part No.	
40726	13/16" (Single End)	40720	5/8" and 13/16"
40728	13/16" and 7/8"	40710	Cross Bar, Small



40416  
to  
40434



40316  
to  
40336



40326S



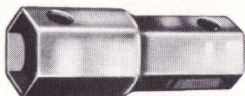
40436S



UW-1512  
to  
UW-1532



309-B



40728



40710

## REGULAR LENGTH

### 1/2"-DRIVE 6-POINT IMPACT SOCKET SET

Part No.	Size	Length	Weight
UW-1616	1/2"	1 1/2"	2 oz.
UW-1618	7/16"	1 1/2"	2 oz.
UW-1620	3/4"	1 1/2"	2 oz.
UW-1622	11/16"	1 1/2"	3 oz.
UW-1624	3/4"	1 1/2"	3 oz.
UW-1626	13/16"	1 1/2"	3 oz.

Set No. 307-B 7-Piece Set 13995 TRAY

## 12 PIECE — 1/2"-DRIVE SET

A compact Socket Set containing the most useful 1/2" Drive Tools.

### 6-POINT SOCKETS

40614	7/16"	40618	9/16"
40616	1/2"	40620	5/8"

### 12-POINT SOCKETS

40122	11/16"	40126	13/16"	40130	15/16"
40124	3/4"	40128	7/8"	40132	1"
49985	15" Flex Handle				
13266	Metal Box (14 3/4 x 2 11/16 x 1 5/8")				

Set No. 312-B 12-Piece Set

## 17 PIECE — 1/2"-DRIVE SET

Gives a wider coverage with a range of 13 Sockets — Sizes 7/16" thru 1 1/4". This set is useful to mechanics in all fields.

### 6-POINT SOCKETS

40614	7/16"	40618	9/16"
40616	1/2"	40620	5/8"

### 12-POINT SOCKETS

40122	11/16"	40128	7/8"	40134	1 1/16"
40124	3/4"	40130	15/16"	40136	1 1/8"
40126	13/16"	40132	1"	40140	1 1/4"

49966	5" Socket Extension
49999	10" Reversible Ratchet
49985	15" Flex Handle
13257	Metal Box (15 1/4 x 4 x 2")

Set No. 317-B 17-Piece Set

## 25 PIECE — 1/2"-DRIVE SOCKET SET

This proper selection of tools is a profitable investment for the mechanic who wants a savings of time and more efficient work from his tools.

### 6-POINT SOCKETS

40614	7/16"	40618	9/16"
40616	1/2"	40620	5/8"

### 12-POINT SOCKETS

40122	11/16"	40128	7/8"	40134	1 1/16"
40124	3/4"	40130	15/16"	40136	1 1/8"
40126	13/16"	40132	1"	40140	1 1/4"

### 12-POINT EXTRA DEEP SOCKETS

40320	5/8"	49964	5" Socket Extension
40322	11/16"	49990	10" Socket Extension
40324	3/4"	49999	Reversible Ratchet
40326	13/16"	49985	15" Flex Handle
40328	7/8"	49978	Universal Joint
49992	9" Speeder	30558	Metal Box (19 x 6 x 4 1/4")

Set No. 325-B 25-Piece Set

307-B

312-B

317-B

325-B



### HEAVY DUTY WRENCHES

#### 3/4" Square Drive

The trend of building Buses, Trucks and even Tractors with streamlined bodies makes for tight places around the giant nuts and bolts which hold them together. Thin walled Heavy Duty Sockets and Heavy Duty Drive Parts are needed just as much on present day heavy duty vehicles as on passenger cars. Because business vehicles are money producers, quick service is vital. You will find Blackhawk Heavy Duty Drive Parts and Sockets to be money makers for you in every respect. The complete assortment of tools has been designed for maximum strength with the excess weight being eliminated. Every Tool is Triple Plate, Chrome finish to guard against weather and preserve its appearance.

#### REVERSIBLE RATCHET

A positive-grip ratchet that gives you extra strength for turning tough nuts. Precision engineered, 60 tooth mechanism permits close acting operation. Head is 2 3/8" in diameter.

Number	Length	Wgt.
69999	20"	4 1/2 lbs.
69999R	Ratchet Renewal Kit	

#### HEAVY DUTY FLEX HANDLE

For many reasons a Flex Handle is the most widely used Heavy Duty attachment. Because this Tool has better balance, greater strength and the ability to get into tight corners, it will amaze you by its workability.

Number	Length	Wgt.
69998	19"	4 lbs.

#### HEAVY DUTY SLIDE TEE HANDLE

Its ability to serve as several different tools has always made it a favorite. It combines with extensions and universal joints to make very handy Tools.

Number	Length	Wgt.
69997	18"	3 1/2 lbs.

#### HEAVY DUTY EXTENSIONS

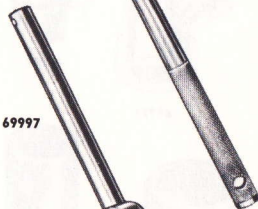
Used in conjunction with any drive tool, they are indispensable on jobs in out of the way places.

Number	Length	Wgt.
69993	4"	10 oz.
69995	8"	1 lb. 3 oz.
69994	16"	2 lbs.

69999



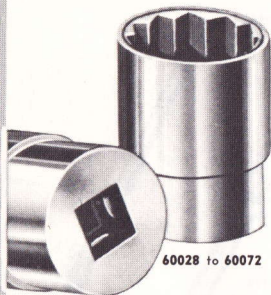
69998



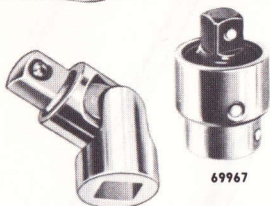
69997



69993  
69995  
69994



60028 to 60072



69978

69967



UW-2624  
to  
UW-2648



UW-2424  
to  
UW-2448



49991  
89993

## 12-POINT HEAVY DUTY SOCKETS

Part No.	Size	Part No.	Size	Part No.	Size
60028	7/8"	60042	1 1/4"	60056	1 3/4"
60030	1 1/8"	60044	1 3/8"	60058	1 7/8"
60032	1"	60046	1 7/8"	60060	2"
60034	1 1/8"	60048	2"	60064	2 1/4"
60036	1 1/4"	60050	2 1/8"	60068	2 1/2"
60038	1 3/8"	60052	2 1/4"	60072	2 3/4"
60040	1 1/2"	60054	2 3/8"		

## RATCHET ADAPTOR

Fits between Handle and Socket to make reversible ratchet combination. Also excellent with Tension Indicators. Features 60-tooth ratcheting mechanism and 12-tooth compression engagement.

Part No.	Drive	Length	Weight
69967	3/4"	3 1/8"	2 lbs.

## HEAVY DUTY UNIVERSAL JOINT

You cannot work around corners without using a Universal Joint. Permits free action up to 90°.

Number	Length	Wgt.
69978	4"	1 1/2 lbs.

## STANDARD 6-POINT IMPACT SOCKETS

Made from special Alloy Steel these rugged impact sockets will stand up under punishing use.

Part No.	Size	Length	Weight
UW-2424	3/4"	2 1/8"	11 oz.
UW-2426	13/16"	2 1/8"	11 oz.
UW-2428	7/8"	2 1/8"	12 oz.
UW-2430	15/16"	2 1/8"	13 oz.
UW-2432	1"	2 1/8"	14 oz.
UW-2434	1 1/16"	2 1/8"	14 oz.
UW-2436	1 1/8"	2 1/8"	14 oz.
UW-2438	1 3/16"	2 1/8"	1 lb. 1 oz.
UW-2440	1 1/4"	2 1/8"	1 lb. 2 oz.
UW-2442	1 3/8"	2 1/8"	1 lb. 7 oz.
UW-2444	1 3/4"	2 1/8"	1 lb. 9 oz.
UW-2446	1 7/8"	2 1/8"	1 lb. 9 oz.
UW-2448	1 1/2"	2 1/8"	1 lb. 9 oz.

## 6-POINT DEEP IMPACT SOCKETS

Part No.	Size	Length	Weight
UW-2624	3/4"	3 1/2"	1 lb.
UW-2626	13/16"	3 1/2"	1 lb.
UW-2628	7/8"	3 1/2"	1 lb.
UW-2630	15/16"	3 1/2"	1 lb. 3 oz.
UW-2632	1"	3 1/2"	1 lb. 3 oz.
UW-2634	1 1/16"	3 1/2"	1 lb. 4 oz.
UW-2636	1 1/8"	3 1/2"	1 lb. 8 oz.
UW-2640	1 1/4"	3 1/2"	2 lbs. 5 oz.
UW-2648	1 1/2"	3 1/2"	2 lbs. 5 oz.

## HEAVY DUTY ADAPTERS

Number	Female	Male	Weight
49991	3/4"	1/2"	12 oz.
89993	3/4"	1"	12 oz.

### 24-PIECE HEAVY DUTY SOCKET SET

This complete 3/4" Square Drive Set is designed for heavy duty work on buses, trucks, tractors, marine engines and equipment, and industrial machinery. Contains 17 sockets ranging from 1 1/8" to 2" plus all the necessary drive tools to perform the most rugged or exacting work. These tools will enable a mechanic to perform any job requiring extra strength.

#### 12-POINT SOCKETS

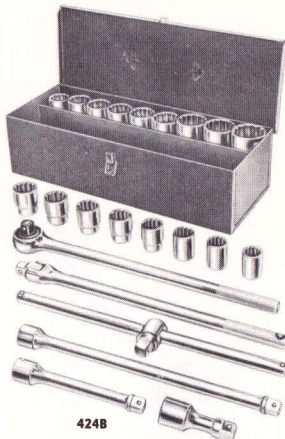
60030	1 5/16"	60042	1 1/8"	60054	1 1/4"
60032	1"	60044	1 3/8"	60056	1 3/4"
60034	1 1/8"	60046	1 7/8"	60058	1 13/16"
60036	1 1/4"	60048	1 1/2"	60060	1 7/8"
60038	1 3/8"	60050	1 7/16"	60064	2"
60040	1 1/4"	60052	1 3/4"		

#### DRIVE PARTS

69993	4" Extension	69999	20" Revs. Ratchet
69995	8" Extension	69998	19" Flex Handle
69994	16" Extension	69997	18" Slide Tee

31231 Metal Box 20 3/8" x 8 3/8" x 5 1/2"

Number		Wgt.
424B	24 Pc. Set	46 1/2 lbs.



### 14-PIECE HEAVY DUTY SOCKET SET

This is the ideal wrench set for all heavy duty work such as in construction and in assembling and maintaining tractors, mine machinery, industrial and marine equipment, engines and similar big units.

#### 12-POINT SOCKETS

60030	1 5/16"	60036	1 1/8"	60046	1 7/8"
60032	1"	60040	1 1/4"	60048	1 1/2"
60034	1 1/8"	60044	1 3/8"	60052	1 3/4"

#### DRIVE PARTS

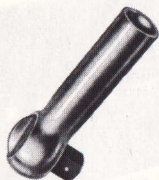
69995	8" Extension	69999	Revs. Ratchet
69994	16" Extension	69998	Flex Handle

31231 Metal Box 20 3/8" x 8 3/8" x 5 1/2"

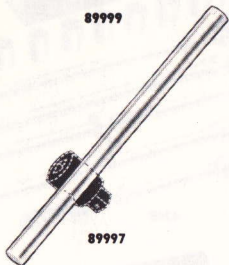
Number		Wgt.
414B	14 Pc. Set	22 1/2 lbs.







**89999**



**89997**



**69990**



**89998**

## REVERSIBLE RATCHET

An extra heavy-duty Ratchet possessing the same refinements of smaller Ratchets, and despite its compactness, has brute strength for the toughest jobs. Because of the demand for both a long and short type wrench, the Ratchet is made as a head only and can be used with No. 89997 Handle Bar inserted within the shank. Hole in shank grasps "Lock-On" plunger of Handle Bar.

Number	Length	Wgt.
<b>89999</b>	8"	4 lbs. 7 oz.
<b>89999R</b>	Repair Kit	

## CROSS BAR

Another dual purpose tool. Use it with the No. 89998 Sliding Tee Head to make Tee or Ell combinations or use it with the No. 89999 Ratchet Head as Handle. Has center groove for engaging spring backed ball in the cross hole.

Number	Length	Wgt.
<b>89997</b>	23"	6 lbs. 6 oz.

## REDUCING ADAPTER

Permits use of  $\frac{3}{4}$ " drive sockets with 1" drive parts. A valuable addition to any tool set.

Number	Female	Male	Wgt.
<b>69990</b>	1"	$\frac{3}{4}$ "	1 lb.

## SLIDING TEE HEAD ADAPTER

Used with No. 89997 Handle Bar to make Tee or Ell combination. Has spring backed ball in cross hole to grip Bar firmly. Top of head has 1" square drive female opening for direct attachment to Extensions.

Number	Length	Wgt.
<b>89998</b>	3 $\frac{1}{2}$ "	1 lb. 8 oz.

## EXTENSIONS

To get the added reach in that close corner, use these Extensions.

Number	Length	Wgt.
89996	7 1/2"	3 lbs. 10 oz.
89995	16 3/4"	7 lbs.

## 12-POINT SOCKETS

Number	Size	Length	Wgt.
80046	1 7/16"	2 1/2"	1 lb.
80048	1 1/2"	2 9/16"	1 lb. 4 oz.
80052	1 5/8"	2 11/16"	1 lb. 4 oz.
80054	1 11/16"	2 3/4"	1 lb. 8 oz.
80058	1 13/16"	2 7/8"	1 lb. 12 oz.
80060	1 7/8"	2 15/16"	2 lbs. 4 oz.
80064	2"	3"	2 lbs. 4 oz.
80068	2 1/8"	3 1/16"	2 lbs. 12 oz.
80070	2 3/16"	3 1/8"	2 lbs. 12 oz.
80072	2 1/4"	3 3/16"	2 lbs. 12 oz.
80076	2 3/8"	3 5/16"	3 lbs. 4 oz.
80080	2 1/2"	3 7/16"	3 lbs. 4 oz.
80084	2 5/8"	3 9/16"	3 lbs. 8 oz.
80088	2 3/4"	3 11/16"	4 lbs. 8 oz.
80094	2 13/16"	3 7/8"	5 lbs. 4 oz.
80096	3"	3 15/16"	5 lbs. 8 oz.
80100	3 1/8"	4 1/16"	6 lbs. 8 oz.

## 15 PIECE EXTRA HEAVY DUTY SET

An extra heavy-duty set for the toughest jobs such as construction and maintenance work where strength is required.

### 12-Point Sockets

Number	Size	Number	Size
80046	1 7/16"	80076	2 3/8"
80052	1 5/8"	80080	2 1/2"
80058	1 13/16"	80084	2 7/8"
80064	2"	80096	3"
80070	2 3/16"		

### Drive Parts

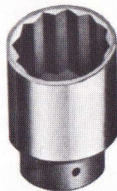
89999	Ratchet	89996	7 1/2" Extension
89998	Slide Tee	89995	16 3/4" Extension
		89997	23" Handle Bar

30442 Metal Box (23 5/8" x 8 1/2" x 5")

Number		Wgt.
515-B	15-Piece Set	72 lbs.



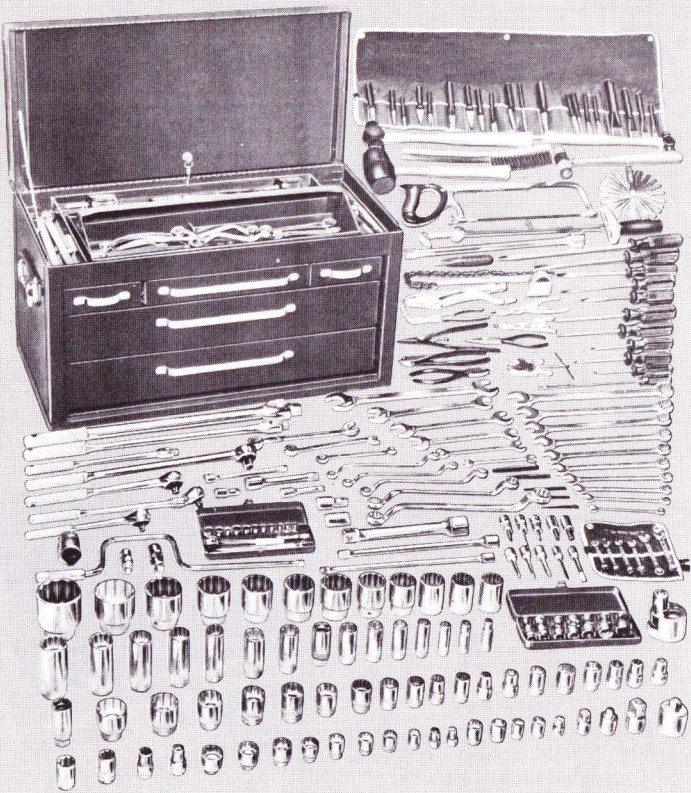
89996  
89995



80046  
to  
80100



515-B





## No. 699-B 247 PIECE ASSORTMENT MASTER TOOL SET

### 1/2"-DRIVE — 8-POINT SOCKETS

40212 3/8" 40214 3/8" 40216 1/2" 40218 3/4"

### 1/2"-DRIVE — 6 and 12-POINT SOCKETS

40614 3/8" 40622 1/4" 40118 3/8" 40126 13/16" 40134 1 1/8"  
 40616 1/2" 40624 3/8" 40120 3/8" 40128 3/8" 40136 1 1/8"  
 40618 3/8" 40114 3/8" 40122 13/16" 40130 13/16" 40140 1 1/4"  
 40620 3/8" 40116 1/2" 40124 3/8" 40132 1"

### 1/2"-DRIVE — EXTRA DEEP 12-POINT SOCKETS

403265 13/16" Spark Plug Skt. 40328 3/8" 40332 1"  
 40326 13/16" 40330 13/16" 40334 1 1/8"

### 1/2"-DRIVE PARTS

49973 Ratchet Adapter 49986 10" Cross Bar 49998 Flex Ratchet 49980 Stud Extractor  
 49964 1 1/8" Extension 49999 Revs. Ratchet 34965 1/2" to 3/4" Red. Adapter  
 49966 5" Extension 49988 18" Flex Handle 69992 1/2" to 3/4" Inc. Adapter  
 49990 10" Extension 49978 Univ. Joint 49979 13/16" Drag Lk. Soc.

### 3/8"-DRIVE — 6 and 12-POINT SOCKETS

30010A 3/8" 30020 3/8" 30612 3/8" 30212 3/8" Flex Skt. 30222 1/4" Flex Skt.  
 30012 3/8" 30022 13/16" 30614 3/8" 30214 3/8" Flex Skt. 30224 3/8" Flex Skt.  
 30014 3/8" 30024 3/8" 30616 1/2" 30216 1/2" Flex Skt. 13657 Box  
 30016 1/2" 30026 13/16" 30618 3/8" 30218 3/8" Flex Skt.  
 30018 3/8" 30028 3/8" 30620 3/8" 30220 3/8" Flex Skt.

### 3/8"-DRIVE — EXTRA DEEP 6-POINT SOCKETS

HW-1512 3/8" HW-1516 1/2" HW-1520 3/8" HW-1524 3/8" HW-15265 13/16" Spark Pl. Skt.  
 HW-1514 3/8" HW-1518 3/8" HW-1522 13/16" HW-1526 13/16" HW-1528 3/8"

### 3/8"-DRIVE PARTS

34988 3" Extension 34986 10" Flex Handle HW-9449 3/8" Allen Wr. Bit HW-9445 3/8" Allen Wr. Bit  
 34987 6" Extension 34997 Flex Ratchet HW-9448 3/8" Allen Wr. Bit HW-9451 2" Phillips  
 34984 1 1/2" Extension 34982 16" Speeder HW-9447 1/4" Allen Wr. Bit HW-9452 3" Sc. Dr. Bit  
 34989 1 3/4" Extension 34993 Univ. Joint HW-243 6 Pc. C. Wr. Set HW-9453 4" Sc. Dr. Bit  
 34999 Revs. Ratchet 34966 3/8" to 1/2" Inc. Adapt. HW-9446 3/8" Allen Wr. Bit HW-9506 .040 Sc. Dr. Bit  
 HW-9505 .035 Sc. Dr. Bit

### 1/4"-DRIVE SET

116-B Set 1/4"-Drive 13264 Box

### 3/4"-DRIVE — 12-POINT SOCKETS

60030 13/16" 60034 1 1/8" 60040 1 1/4" 60044 1 3/8" 60048 1 1/2" 60056 1 3/4"  
 60032 1" 60036 1 1/8" 60042 1 1/2" 60046 1 3/8" 60052 1 1/2" 60060 1 3/4"  
 69995 8" Extension 69994 16" Extension 69998 Flex Handle 49991 2" Adapter

### WRENCHES

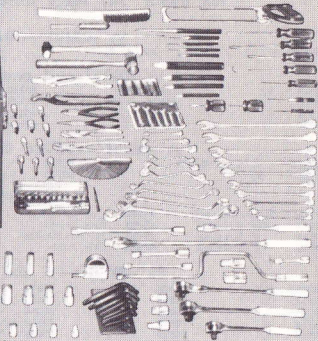
4723 3/8" x 3/8" O.E. 3116 3/8" x 3/4" Ignition BW-1405 3/8" x 13/16" B.E. BW-1164 3/8" x 3/8" C.W.  
 4725B 1/2" x 3/8" O.E. 3124 3/8" x 3/4" Ignition BW-1208 3/8" x 3/8" B.E. BW-1165 1/2" x 1/2" C.W.  
 4027 1/2" x 1/2" O.E. 3130 1/2" x 3/8" Ignition BW-1208H 3/8" x 3/8" B.E. BW-1166 3/8" x 3/8" C.W.  
 4729 3/8" x 3/8" O.E. BW-1601 1/2" x 15" Sh. Bx. BW-1210 1/2" x 3/8" B.E. BW-1167 1/2" x 1/2" C.W.  
 4731 3/8" x 13/16" O.E. BW-1603 1/2" x 3/8" 15" Sh. Bx. BW-1212 3/8" x 13/16" B.E. BW-1167A 3/8" x 3/8" C.W.  
 4731A 3/8" x 3/8" O.E. BW-1605 3/8" x 15" Sh. Bx. BW-1214 3/8" x 3/8" B.E. BW-1168 1/2" x 1/2" C.W.  
 4033C 13/16" x 1" O.E. 15659 3/8" x 3/8" Hf. Moon BW-1161 3/8" x 3/8" C.W. BW-1170 1" x 1" C.W.  
 1090 3/8" x 1/2" O.E. 15660 3/8" x 3/8" Hf. Moon BW-1162 1/2" x 1/2" C.W. ZW-1214 3/8" x 3/8" F.N.  
 1092 3/8" x 3/8" O.E. BW-1401 3/8" x 3/8" B.E. BW-1163 3/8" x 3/8" C.W. ZW-1215 1/2" x 3/8" F.N.  
 3114 3/8" x 1/2" Ignition BW-1403 1/2" x 3/8" B.E. ZW-1216 3/8" x 1/2" F.N.

### OTHER TOOLS

HT-1452 Soft Face Hammer PT-85 Spark Plug Term. Plier ST-1140 1 1/2" Phillips Sc. Dr. ZT-1310 Tire and Rim Brush  
 HT-1003-1 Ball Peen Hammer ET-1071 Battery Terminal Puller ST-1081 3" Phillips Sc. Dr. ZT-1114 Shop Knife  
 HT-1008-1 Ball Peen Hammer PT-1002 6" Slip Joint Pliers ST-1082 4" Phillips Sc. Dr. FT-1204 Hack Saw Frame  
 ZT-1112 Putty Knife PT-1057 7" Diagonal Cutters ST-1083 6" Phillips Sc. Dr. ZW-1120 Lower Jaw Wr.  
 PT-1264 Int. Snap Ring Plier ST-1024 4" Screw Driver ST-1167 Screw Starter ZW-55 Hex Key Wr. Set  
 PT-1265 Ext. Snap Ring Plier ST-1006 6" Screw Driver AW-1350 Universal Chain Wr. DT-55 Screw Extractor Set  
 PT-1003 8" Slip Joint Plier ST-1026 6" Screw Driver 49825 Rd. Beam Torque Wr. XT-1014 Carburetor Adj. Tool  
 PT-1052 6" Cutting Plier ST-1028 8" Screw Driver ZT-1212 Tin Snips MT-1049 All Purp. Feeler Gauge  
 PT-1263 8" Parrot Nose Plier ST-1032 12" Screw Driver ST-1100 3" Clutch Type Sc. Dr. MT-1041 Special Wire Gauge  
 PT-1266 7 3/4" Lock Ring Plier ST-1150 Pocket Sc. Driver ST-1102 4" Clutch Type Sc. Dr. FT-1003 Ignition Point File  
 PT-1128 6 1/2" Side Cutting Plier ST-1214 Spark Sc. Driver ST-1103 5 1/2" Clutch Type Sc. Dr. CT-114 Chisel and Punch Set  
 CT-1617 Pry Bar ST-1146 Adjusting Sc. Driver ZT-1193 16 1/2" Magnet Tool HT-1255 Rubber Mallet MT-1108 Steel Tape Rule

31234BH Metal Box (14 1/4" x 26" x 12 3/8")

# Super Set 169 Piece Assortment



## No. 698-B 169 PIECE ASSORTMENT SUPER TOOL SET

### 1/2"-DRIVE — 6 and 12-POINT SOCKETS

40614	3/8"	40620	3/8"	40126	1 1/4"	40132	1"	40136	1 1/4"
40616	1/2"	40122	3/8"	40128	3/4"	40134	1 1/8"	40140	1 1/4"
40618	3/8"	40124	3/4"	40130	3/8"				

### 1/2"-DRIVE — EXTRA DEEP 12-POINT SOCKETS

40326	1 1/8"	40328	3/4"	40330	3/8"	40332	1"	40334	1 1/8"
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### 1/2"-DRIVE PARTS

49964	1 1/8" Extension	49990	10" Extension	49988	18" Flex Handle	34965	1/2" to 3/4" Red. Adap.
49966	5" Extension	49999	Revs. Ratchet	49978	Univ. Joint	69992	1/2" to 3/4" Inc. Adap.

### 3/8"-DRIVE — 6 and 12-POINT SOCKETS

30010A	3/8"	30018	3/8"	30026	1 1/8"	30616	1/2"	30214	3/8" Flex Skt.
30012	3/8"	30020	3/8"	30028	3/8"	30618	3/8"	30216	1/2" Flex Skt.
30014	3/8"	30022	3/8"	30612	3/8"	30620	3/8"	30218	3/8" Flex Skt.
30016	1/2"	30024	3/8"	30614	3/8"				

### 3/8"-DRIVE — EXTRA DEEP 6-POINT SOCKETS

HW-1512	3/8"	HW-1516	1/2"	HW-1520	3/8"	HW-1524	3/8"	HW-1526S	1 1/8" Spark Pl. Skt.
HW-1514	3/8"	HW-1518	3/8"	HW-1522	1/8"	HW-1526	1/8"	HW-1528	3/8"

### 3/8"-DRIVE PARTS

34988	3" Extension	34997	Flex Ratchet	HW-9452	3" Phillips Sc. Dr. Bit	HW-9446	3/8" Allen Wr. Bit
34987	6" Extension	34993	Univ. Joint	HW-9453	4" Phillips Sc. Dr. Bit	HW-9445	3/8" Allen Wr. Bit
34989	1 3/4" Extension	34966	3/4" to 1/2" Inc. Adap.	HW-9449	3/8" Allen Wr. Bit	HW-9505	.035 Sc. Dr. Bit
34999	Revs. Ratchet	34982	16" Speeder	HW-9448	3/8" Allen Wr. Bit	HW-9506	.040 Sc. Dr. Bit
34986	10" Flex Handle	HW-9451	2" Phillips Sc. Dr. Bit	HW-9447	1/4" Allen Wr. Bit	BW-23	6 Pc. C. Wr. Set

### 1/4"-DRIVE SET

116-B Set 1/4"-Drive 13264 Box

### WRENCHES

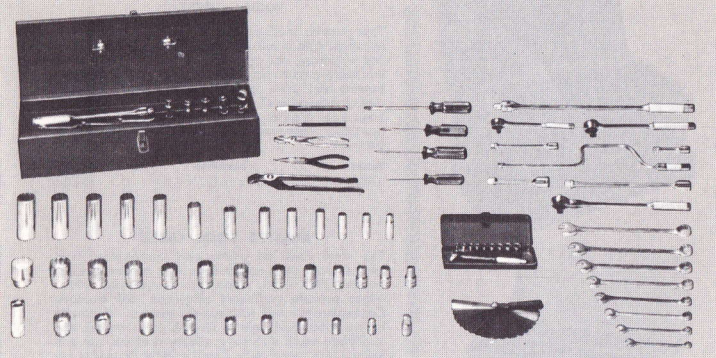
BW-1161	3/8" x 3/8" C.W.	BW-1167	1 1/8" x 1 1/8" C.W.	BW-1208	3/8" x 3/8" B.E.	BW-1405	3/8" x 1 1/8" B.E.
BW-1162	1/2" x 1/2" C.W.	BW-1167A	3/4" x 3/4" C.W.	BW-1210	1/2" x 1/2" B.E.	BW-1601	3/8" x 3/8" 15° Sh. Bx.
BW-1163	3/8" x 3/8" C.W.	BW-1168	1 1/8" x 1 1/8" C.W.	BW-1212	3/8" x 3/8" B.E.	BW-1603	1/2" x 1/2" 15° Sh. Bx.
BW-1164	3/8" x 3/8" C.W.	BW-1170	1" x 1" C.W.	BW-1214	3/8" x 3/8" B.E.	BW-1605	3/8" x 3/8" 15° Sh. Bx.
BW-1165	1 1/8" x 1 1/8" C.W.	BW-1090	3/8" x 1/2" O.E.	BW-1401	3/8" x 3/8" B.E.	ZW-1214	3/8" x 3/8" F.N.
BW-1166	3/8" x 3/8" C.W.	BW-1092	3/8" x 3/8" O.E.	BW-1403	1/2" x 1/2" B.E.	ZW-1215	1/2" x 1/2" F.N.

### OTHER TOOLS

HT-1452	Soft Face Hammer	ST-1024	4" Shank Sc. Driver	CT-1004	5 1/2" Cold Chisel	ZT-1310	Tire and Rim Brush
HT-1003-1	Ball Peen Hammer	ST-1006	6" Shank Sc. Driver	CT-1006	6 1/4" Cold Chisel	FT-1204	Hack Saw Frame
ZT-1114	Putty Knife	ST-1026	6" Shank Sc. Driver	CT-1008	7" Cold Chisel	ZW-1120	Lever Jaw Wr.
PT-1003	8" Slip Joint Plier	ST-1150	Pocket Sc. Driver	CT-1010	8" Cold Chisel	ZW-58	Hex Key Wr. Set
PT-1052	6" Cutting Plier	ST-1214	Spark Sc. Driver	CT-1314	5" Prick Punch	DT-55	Sc. Extractor Set
PT-1250	Rib Lock Plier	ST-1146	Adjusting Sc. Driver	CT-1453	6" Pin Punch	MT-1049	All Purp. Feeler Ga.
PT-1128	6 1/2" Side Cut. Plier	ST-1140	1 1/2" Phillips Sc. Dr.	CT-1454	6 1/4" Pin Punch	FT-1003	Ignition Point File
CT-1617	Pry Bar	ST-1081	3" Phillips Sc. Dr.	CT-1464	6" Pin Punch	MT-1108	Steel Tape Rule
PT-1002	6" Slip Joint Pliers	ST-1082	4" Phillips Sc. Dr.	CT-1558	10 1/2" Taper Punch		

31234BH Metal Box (14 1/4" x 26" x 12 3/8")

# Multi Set 84 Piece Assortment



## No. 684-B 84 PIECE ASSORTMENT MULTI-DUTY TOOL SET

### 1/2"-DRIVE — 6 and 12-POINT SOCKETS

40614	3/16"	40122	1 1/16"	40130	1 5/16"
40616	1/2"	40124	3/4"	40132	1"
40618	5/16"	40126	13/16"	40134	1 1/16"
40620	3/8"	40128	7/8"	40136	1 1/8"
				40140	1 1/4"

### 1/2"-DRIVE — EXTRA DEEP 12-POINT SOCKETS

40326	13/16"	H-14	5/16" x 1 1/32"	O.E. Wr.	BW-1163	3/16" x 9/16"	C. Wr.
40328	3/8"	H-16	3/8" x 7/16"	O.E. Wr.	BW-1164	5/8" x 3/4"	C. Wr.
40330	15/16"	BW-1158H	5/16" x 5/16"	C. Wr.	BW-1165	1 1/16" x 1 1/16"	C. Wr.
40332	1"	BW-1160H	3/8" x 3/8"	C. Wr.	BW-1166	3/4" x 3/4"	C. Wr.
40334	1 1/16"	BW-1161	7/16" x 7/16"	C. Wr.	CT-1006	Cold Chisel	
H-12	1/4" x 9/32"	BW-1162	1/2" x 1/2"	C. Wr.	CT-1453	Pin Punch	

### 1/2"-DRIVE PARTS

49966	5" Extension	49999	Revs. Ratchet	49988	18" Flex Handle
49990	10" Extension			49978	Univ. Joint

### 3/8"-DRIVE — 6 and 12-POINT SOCKETS

30022	1 1/16"	30612	3/8"	30620	5/8"
30024	3/4"	30614	7/16"	30214	7/16" Flex Skt.
30026	13/16"	30616	1/2"	30216	1/2" Flex Skt.
30028	3/8"	30618	9/16"	30218	9/16" Flex Skt.

### 3/8"-DRIVE — EXTRA DEEP 6-POINT SOCKETS

HW-1512	3/8"	HW-1518	9/16"	HW-1524	3/4"
HW-1514	7/16"	HW-1520	5/8"	HW-1526	13/16"
HW-1516	1/2"	HW-1522	1 1/16"	HW-1526S	13/16" Spark Pl. Skt.

### 3/8"-DRIVE PARTS

34988	3" Extension	34986	10" Flex Handle	34982	16" Speeder
34987	6" Extension	34997	Flex Ratchet	34993	Univ. Joint
34999	Revs. Ratchet			34966	1/2" to 3/8" Red. Adapt.

### 1/4"-DRIVE SET

111-B Set 1/4"-Drive 13265 Box

### OTHER TOOLS

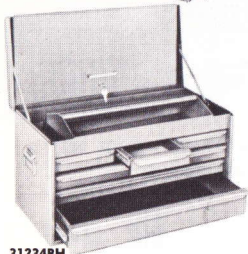
PT-1250	Rib Lock Plier	ST-1024	4" Shank Sc. Driver	ST-1081	3" Phillips Sc. Driver
PT-1002	6" Slip Joint Plier	ST-1026	6" Shank Sc. Driver	ST-1082	4" Phillips Sc. Driver
PT-1128	6 1/2" Side Cutting Plier			MT-1049	All Purp. Feeler Gauge

30580 Metal Box (19 1/2" x 6 3/4" x 6 1/4")





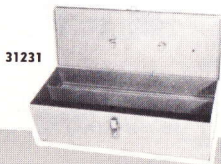
31059



31234BH



31235BH



31231

## TOOL CHEST

This popular medium size chest is large enough to accommodate a full assortment of socket wrenches, box wrenches, and open end wrenches. The convenient carry out tote tray is partitioned to separate your sockets and drive tools. Has two full size drawers mounted on rollers for easy opening and closing. The hood front features two piano type hinges for extra durability. There are sturdy handles at both ends for carrying.

Number	Dimensions	Weight
31059	22 1/4" x 10 1/4" x 9 3/4"	34 lbs.

## MASTER TOOL CHEST

The ideal chest for professional mechanics. Rigid heavy gauge steel construction with interior channel bracing. Full length piano type hinges, and folded edges provide additional protection and strength. Convenient tote tray with non-slip tubular "V" handle for carrying tools right to the job. Has two full size and three small size easy gliding drawers that will not pull out completely. Small middle drawer is felt lined for holding precision tools. Hinged style hood front and top panels fold out of way when open and securely locks drawers in place when closed. Theft proof 3-way tumbler lock. Heavy duty, nickel plated handles for easy carrying.

Part No.	Dimensions	Weight
31234BH	14 1/4" x 26" x 12 3/16"	60 lbs.

## MASTER PORTABLE TOOL CABINET

The handsomest and most serviceable Tool Safe available in the industry. The Blackhawk Master Rollaway Cabinet affords many distinct advantages. No. 31235BH when closed, occupies a minimum of space, rolls under the standard shop bench and is furnished with tumbler type lock to insure against pilferage. When open, the drop front slides into a recessed position beneath the top . . . the Tool Chest No. 31234BH or 31059 may then be placed on top or remain in the well at the base. There are three steel drawers, 4" deep with roller slides in the Cabinet. Note the 6" detachable shelf at the right which is perforated to accept valves or tools when working. Rollaway measures 26 3/4" wide, 33 1/4" high and 17" deep and is provided with wheel brakes to hold Cabinet in place when working.

Number	Dimensions	Weight
31235BH	33 1/4" x 26 3/4" x 17"	106 lbs.

## HEAVY DUTY TOOL BOX

This heavy gauge steel tool box has a full piano type hinge, sturdy hasp and is reinforced throughout. Ideal for 3/4" and 1" sockets and attachments.

Part No.	Dimensions	Weight
31231	20 3/8" x 8 3/8" x 5 1/2"	11 1/4 lbs.

These Blackhawk pliers are hot drop forged from special analysis alloy steel. The cutting edges are hardened by electronic induction and honed by hand for keen edges that retain their sharpness.

## HEAVY DUTY DIAGONAL CUTTING PLIERS

The sturdy construction, great cutting angle and spoon shaped jaws, make this a popular Plier with mechanics. Finish polished head.

Number	Size	Weight
PT-1057	7"	8 oz.

## LARGE DIAGONAL PLIERS

A real handful that permits tremendous leverage and will quickly and surely cut all of the wire that you will ever encounter. Temper blue finish, polished heads.

Number	Size	Weight
PT-1060	7"	12 oz.

## LINEMAN'S PLIERS

A new design in construction pliers developed in cooperation with Utilities Companies. You will appreciate its many advantages the moment you see and handle a pair of these heavy duty line pliers. Polished heads, temper blue handles.

Number	Size	Weight
PT-1108	8"	14 oz.

## DIAGONAL CUTTING PLIERS

Very popular among automobile mechanics because the jaws are hardened to cut piano wire or choke wire. Finish polished head.

Number	Size	Weight
PT-1052	6"	5 oz.

## LONG NOSE SIDECUTTING PLIERS

For some simple gripping jobs a low-priced plier will serve almost as well as a specially drop forged and heat treated product. However, for long reach work in any restricted corners, there is no choice about the tool to use. Temper blue finish, polished heads.

Number	Size	Weight
PT-1128	6 1/2"	5 oz.

## CURVED NEEDLE NOSE PLIERS

For use in deep and narrow places. Perfect for assembly or adjustments where clearance is limited.

Number	Length	Weight
PT-1149	6"	5 oz.

## FLUSH BOLT SIDECUTTER

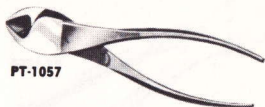
Special Blackhawk flush bolt sidecutter for the automotive mechanic. The sidecutting jaws are real cutters. Use them for gripping and holding on all your work. Temper blue finish, polished heads.

Number	Size	Weight
PT-1029	7"	5 oz.

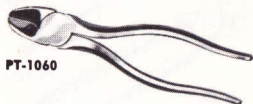
## HEAVY DUTY SLIP JOINT COMBINATION PLIERS

Snub-nosed design with smooth-action slip joint. Powerful, sure-grip jaws with wire cutter. Chrome finish, knurled grip and polished.

Number	Size	Weight
PT-1000 (Satin Chrome)	6"	8 oz.
PT-1002	6"	8 oz.
PT-1003	8"	10 oz.
PT-1004	10"	12 oz.
PT-1011 (Thin Nose)	5"	3 oz.
PT-1023 Extra heavy duty	8"	12 oz.



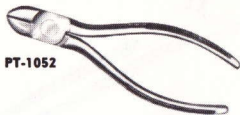
PT-1057



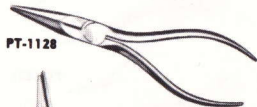
PT-1060



PT-1108



PT-1052



PT-1128



PT-1149



PT-1029



PT-1000  
PT-1002  
PT-1003  
PT-1004  
PT-1011  
PT-1023



PT-1250



PT-1253



PT-1263



PT-1248



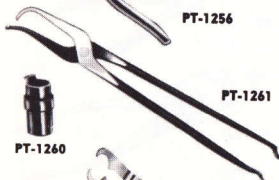
PT-1251



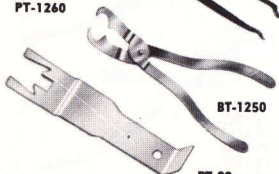
PT-1256



PT-1261



PT-1260



BT-1250

PT-92

## RIB-LOCK PLIERS

The rib construction of the joint takes all the strain off the nut and pin. This results in a far stronger plier. The greater the pressure, the tighter the grip, even when pressure is applied to only one handle. Full forged of high grade alloy steel.

Number	Length	Weight
PT-1250	10"	12 oz.

## WATER PUMP AND ELECTRICIAN'S PLIERS

Six place slip-joint Pump Plier. A general utility tool for narrow quarters and wide spans. Smooth working adjustments over a wide range.

Number	Length	Weight
PT-1253	10"	11 oz.

## HEAVY DUTY PARROT NOSE PLIERS

Powerful gripping Pliers, drop forged from special alloy steel. The sturdy jaws grip like a pipe wrench. Rib grooves increases work range. Polished head.

Number	Size	Weight
PT-1263	8"	10 oz.

## LARGE RIB JOINT PLIER

Multiple Rib grooves provide extra flexibility for application up to 2 3/4". Large plastic coated handles enable user to exert maximum pressure comfortably.

Part No.	Length	Weight
PT-1248	14"	2 lbs.

## IGNITION PLIERS

A midget Plier that is intended for heavy work. The exclusive design guarantees a solid grip on any small nut. Three adjustments with a 1/2" range.

Number	Size	Weight
PT-1251	5"	1/2 lb.

## MIDGET IGNITION PLIERS

"A small handful of power." Induction hardened teeth for a sure grip and long wear. Has non-slip handles.

Number	Length	Weight
PT-1256	4 1/2"	2 oz.

## BRAKE SPRING PLIERS

A sturdy Tool of the popular type for brake spring services. Has the leverage to handle the strongest springs with ease. Notched ends for adjustments. Polished head.

Number	Size	Weight
PT-1261	13"	12 oz.
PT-1262	With adapter for lifting anchor pins. 14"	18 oz.

## BRAKE SPRING PLIERS ADAPTER

When attached to Brake Spring Pliers, the cup of this Adapter fits over anchor pin and anchor pin springs are lifted off easily by the Adapter lug.

Number	Size	Weight
PT-1260	1 1/2"	6 oz.

## DOOR CLIP REMOVAL TOOL

Removes horseshoe spring clip that holds inside door and window handles on most new and old model Fords and General Motors cars. Made of high grade alloy steel.

Part No.	Length	Weight
BT-1250 G.M.	7 3/4"	4 oz.
PT-92 G.M. and Ford	6 3/4"	4 oz.



## BATTERY PLIERS

Designed expressly for battery installation work. Offset jaws provide good knuckle clearance. Chrome plated. Heavy duty steel with polished and buffed head.

Number	Size	Weight
PT-1259	7"	10 oz.

## BATTERY TERMINAL CLAMP SPREADER AND CLEANER

A triple purpose tool it spreads the battery terminal clamp, cleans it, and also cleans the battery terminal post. Insert spreader into clamp and spread handles.

Number	Length	Weight
PT-1272	7 1/2"	10 1/2 oz.

## HOSE CLAMP PLIER

Handles standard type of hose clamps. Jaw openings hold the clamp in line or at right angles to the handle.

Part No.	Length	Weight
PT-1280	8"	12 oz.

## LOCK RING PLIERS

Designed to spread snap lock rings and remove horseshoe type of brake key from brake shoe. Spring action keeps jaws in closed position for easy operation. Jaws notched and outside face knurled to prevent slipping.

Number	Size	Weight
PT-1266	7 3/4"	7 oz.

## SNAP RING PLIERS

Pliers remove snap rings quickly and easily without damaging snap rings or bearing surfaces.

Number	Length	Weight
P-59B	10"	6 oz.

## SNAP RING PLIERS

An economy plier with easily interchangeable tips that makes snap ring installation and removal "a snap." Available in both external and internal types with four sets of tips. Plastic handles insure a non-slip comfortable grip. Hexagonal points are automatically aligned and cannot twist. Each plier is individually packed with four sets of interchangeable tips.

Part No.	Description
PT-1264	Internal Snap Ring Pliers
PT-1265	External Snap Ring Pliers
PT-1166-1	90° Angle Tip .035 Diameter
PT-1166-2	45° Angle Tip .045 Diameter
PT-1166-3	Straight Tip .045 Diameter
PT-1166-4	Straight Tip .060 Diameter

## SPARK PLUG TERMINAL PLIERS

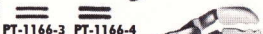
Removes Spark Plug Terminal Wires without fear of shock hazard up to 25,000 volts or more. These pliers have been designed and tested to withstand voltages far in excess of any a mechanic should encounter. Genuine Delrin "500" tips provide maximum shock protection and durability. Safety grips add dual protection and comfort.

Part No.	Weight
PT-85	4 oz.

## DUCK BILL WIRING PLIERS

Standard long duckbill. Ideal for wiring, also in assembly work where long reach is required.

Number	Length	Weight
PT-1178	8"	7 oz.



Thin heads, greater strength, and perfect balance is our standard for Open End Wrenches. Drop forged of the finest alloy steel, these Open Ends will resist the strain of constant use. The accurate milled openings insure proper fit.

H-10  
to  
4039B

1090  
to  
1094

3114  
to  
3134

ZW-1214  
to  
ZW-1217

Part No.	Sizes	Length	Weight
H-10 Min. Wr.	$\frac{3}{16}$ " x $\frac{7}{32}$ "	2 $\frac{1}{2}$ "	1 oz.
H-12 Min. Wr.	$\frac{1}{4}$ " x $\frac{1}{32}$ "	3"	1 oz.
H-14 Min. Wr.	$\frac{5}{16}$ " x $\frac{1}{32}$ "	3 $\frac{3}{4}$ "	1 oz.
H-16 Min. Wr.	$\frac{3}{8}$ " x $\frac{1}{16}$ "	4 $\frac{1}{4}$ "	2 oz.
H-18 Min. Wr.	$\frac{1}{2}$ " x $\frac{1}{32}$ "	4 $\frac{1}{4}$ "	2 oz.
4020	$\frac{1}{4}$ " x $\frac{5}{16}$ "	4 $\frac{1}{4}$ "	1 $\frac{1}{2}$ oz.
4721	$\frac{5}{16}$ " x $\frac{3}{8}$ "	4 $\frac{1}{4}$ "	2 oz.
4723	$\frac{3}{8}$ " x $\frac{7}{16}$ "	5 $\frac{1}{4}$ "	2 oz.
4725	$\frac{7}{16}$ " x $\frac{1}{2}$ "	5 $\frac{1}{8}$ "	3 oz.
4725B	$\frac{1}{2}$ " x $\frac{1}{16}$ "	6 $\frac{1}{2}$ "	3 oz.
4727	$\frac{1}{16}$ " x $\frac{5}{8}$ "	7 $\frac{1}{4}$ "	4 oz.
4027	$\frac{1}{32}$ " x $\frac{1}{16}$ "	7 $\frac{5}{8}$ "	4 oz.
4027A	$\frac{5}{8}$ " x $\frac{1}{16}$ "	7 $\frac{5}{8}$ "	4 oz.
4729	$\frac{3}{8}$ " x $\frac{3}{4}$ "	8"	6 oz.
4029B	$\frac{1}{16}$ " x $\frac{3}{4}$ "	8 $\frac{1}{16}$ "	6 oz.
4731	$\frac{3}{4}$ " x $\frac{13}{16}$ "	9 $\frac{1}{8}$ "	9 oz.
4031B	$\frac{25}{32}$ " x $\frac{13}{16}$ "	9 $\frac{1}{8}$ "	10 oz.
4731A	$\frac{3}{4}$ " x $\frac{7}{8}$ "	9 $\frac{1}{16}$ "	12 oz.
4731B	$\frac{13}{16}$ " x $\frac{7}{8}$ "	9 $\frac{1}{16}$ "	8 oz.
4033A	$\frac{7}{8}$ " x $\frac{15}{16}$ "	12 $\frac{1}{32}$ "	13 oz.
4033C	$\frac{15}{16}$ " x 1"	12 $\frac{1}{32}$ "	15 oz.
4735A	$\frac{1}{16}$ " x $\frac{11}{8}$ "	13 $\frac{7}{8}$ "	1 lb., 5 oz.
4037	$\frac{1}{16}$ " x $\frac{1}{4}$ "	14 $\frac{1}{8}$ "	1 $\frac{1}{2}$ lbs.
4039B	$\frac{1}{4}$ " x $\frac{15}{16}$ "	16 $\frac{3}{16}$ "	2 lbs., 4 oz.

## TAPPET WRENCHES

Double end. Offset heads. A new design in tappet wrenches which eliminates needless duplication of lengths and sizes. These are short enough to take care of the small clearance jobs and yet long enough to handle practically all of the work on present day cars.

No.	Opening	Length	Wgt.
1090	$\frac{7}{16}$ " x $\frac{1}{2}$ "	10"	3 $\frac{1}{2}$ oz.
1090G	$\frac{7}{16}$ " x $\frac{1}{32}$ "	10"	3 $\frac{1}{2}$ oz.
1090D	$\frac{1}{2}$ " x $\frac{1}{32}$ "	10"	3 $\frac{1}{2}$ oz.
1092	$\frac{9}{16}$ " x $\frac{5}{8}$ "	10"	4 oz.
1092F	$\frac{5}{8}$ " x $\frac{11}{16}$ "	10"	4 $\frac{1}{2}$ oz.
1094	$\frac{3}{4}$ " x $\frac{7}{8}$ "	10"	6 oz.

## IGNITION OPEN END WRENCHES

Every Wrench has the correct angle to perfectly fit the nuts for which it is engineered.

Part No.	Opening Size		Length	Wgt.
	15°	60°		
3114	$\frac{13}{64}$ " x $\frac{1}{4}$ "	$\frac{13}{64}$ " x $\frac{1}{4}$ "	2 $\frac{3}{4}$ "	$\frac{1}{2}$ oz.
3116	$\frac{7}{32}$ " x $\frac{1}{4}$ "	$\frac{7}{32}$ " x $\frac{1}{4}$ "	2 $\frac{3}{4}$ "	$\frac{1}{2}$ oz.
3118	$\frac{15}{64}$ " x $\frac{1}{4}$ "	$\frac{15}{64}$ " x $\frac{1}{4}$ "	2 $\frac{3}{4}$ "	$\frac{1}{2}$ oz.
3120	$\frac{1}{4}$ " x $\frac{7}{32}$ "	$\frac{1}{4}$ " x $\frac{7}{32}$ "	3 $\frac{1}{16}$ "	$\frac{1}{2}$ oz.
3122	$\frac{17}{64}$ " x $\frac{1}{4}$ "	$\frac{17}{64}$ " x $\frac{1}{4}$ "	3 $\frac{1}{16}$ "	$\frac{1}{2}$ oz.
3124	$\frac{9}{32}$ " x $\frac{5}{16}$ "	$\frac{9}{32}$ " x $\frac{5}{16}$ "	3 $\frac{1}{16}$ "	$\frac{1}{2}$ oz.
3128	$\frac{5}{16}$ " x $\frac{7}{32}$ "	$\frac{5}{16}$ " x $\frac{7}{32}$ "	3 $\frac{1}{16}$ "	$\frac{1}{2}$ oz.
3130	$\frac{11}{32}$ " x $\frac{3}{8}$ "	$\frac{11}{32}$ " x $\frac{3}{8}$ "	3 $\frac{3}{4}$ "	$\frac{1}{2}$ oz.
3132	$\frac{3}{8}$ " x $\frac{11}{32}$ "	$\frac{3}{8}$ " x $\frac{11}{32}$ "	3 $\frac{3}{4}$ "	$\frac{1}{2}$ oz.
3134	$\frac{7}{16}$ " x $\frac{1}{2}$ "	$\frac{7}{16}$ " x $\frac{1}{2}$ "	4 $\frac{3}{8}$ "	$\frac{1}{2}$ oz.

## FLARE NUT WRENCHES

Useful in aviation, refrigeration, automotive and tractor work. These Wrenches prevent rounding off the corners and damaging soft brass flare nuts. The milled opening permits the Wrench to be slipped over copper tubing used on fuel, oil and vacuum lines.

Part No.	Sizes	Length	Slots	Weight
ZW-1214	$\frac{3}{8}$ " - $\frac{7}{16}$ "	5 $\frac{3}{4}$ "	$\frac{3}{16}$ " - $\frac{1}{4}$ "	2 oz.
ZW-1215	$\frac{1}{2}$ " - $\frac{3}{8}$ "	6 $\frac{7}{8}$ "	$\frac{5}{16}$ " - $\frac{3}{8}$ "	3 oz.
ZW-1216	$\frac{3}{8}$ " - $\frac{11}{16}$ "	8"	$\frac{7}{16}$ " - $\frac{9}{16}$ "	4 oz.
ZW-1217	$\frac{3}{4}$ " - $\frac{7}{8}$ "	9"	$\frac{11}{16}$ "	8 oz.

Every day more mechanics turn to this type of wrench. The same opening on each end makes it easy to work on square or hex nuts. Offset for maximum clearance.

### 6-POINT MINIATURE COMBINATION WRENCHES

Part No.	Size	Length	Weight
BW-1020	$\frac{7}{32}$ " x $\frac{7}{32}$ "	3"	1 oz.
BW-1021	$\frac{1}{4}$ " x $\frac{1}{4}$ "	3"	1 oz.
BW-1022	$\frac{9}{32}$ " x $\frac{9}{32}$ "	3 $\frac{1}{2}$ "	1 oz.
BW-1023	$\frac{5}{16}$ " x $\frac{5}{16}$ "	3 $\frac{1}{2}$ "	1 oz.
BW-1024	$\frac{11}{32}$ " x $\frac{11}{32}$ "	4 $\frac{3}{16}$ "	2 oz.
BW-1025	$\frac{3}{8}$ " x $\frac{3}{8}$ "	4 $\frac{3}{16}$ "	2 oz.

### 6-POINT COMBINATION WRENCHES

Part No.	Opening	Length	Weight
BW-1158H	$\frac{5}{16}$ " x $\frac{5}{16}$ "	4 $\frac{1}{4}$ "	2 oz.
BW-1160H	$\frac{3}{8}$ " x $\frac{3}{8}$ "	5"	2 oz.
BW-1161H	$\frac{7}{16}$ " x $\frac{7}{16}$ "	5 $\frac{5}{16}$ "	2 oz.
BW-1162H	$\frac{1}{2}$ " x $\frac{1}{2}$ "	5 $\frac{5}{16}$ "	3 oz.
BW-1163H	$\frac{9}{16}$ " x $\frac{9}{16}$ "	6 $\frac{11}{16}$ "	4 oz.
BW-1164H	$\frac{5}{8}$ " x $\frac{5}{8}$ "	7 $\frac{11}{16}$ "	4 oz.
BW-1165H	$\frac{11}{16}$ " x $\frac{11}{16}$ "	8 $\frac{1}{2}$ "	6 oz.
BW-1166H	$\frac{3}{4}$ " x $\frac{3}{4}$ "	9 $\frac{3}{8}$ "	6 oz.

### 12-POINT COMBINATION WRENCHES

No.	Opening	Length	Wgt.
BW-1161	$\frac{7}{16}$ " x $\frac{7}{16}$ "	5 $\frac{7}{8}$ "	2 $\frac{1}{2}$ oz.
BW-1162	$\frac{1}{2}$ " x $\frac{1}{2}$ "	6 $\frac{5}{8}$ "	3 oz.
BW-1163	$\frac{9}{16}$ " x $\frac{9}{16}$ "	7 $\frac{1}{2}$ "	4 oz.
BW-1164	$\frac{5}{8}$ " x $\frac{5}{8}$ "	8 $\frac{3}{8}$ "	4 $\frac{1}{2}$ oz.
BW-1165	$\frac{11}{16}$ " x $\frac{11}{16}$ "	9 $\frac{1}{8}$ "	6 oz.
BW-1166	$\frac{3}{4}$ " x $\frac{3}{4}$ "	10"	8 oz.
BW-1167A	$\frac{13}{16}$ " x $\frac{13}{16}$ "	10 $\frac{7}{8}$ "	9 oz.
BW-1167	$\frac{7}{8}$ " x $\frac{7}{8}$ "	11 $\frac{3}{8}$ "	10 oz.
BW-1168	$\frac{15}{16}$ " x $\frac{15}{16}$ "	12 $\frac{1}{2}$ "	13 oz.
BW-1170	1" x 1"	13 $\frac{5}{8}$ "	14 oz.
BW-1171	$\frac{1}{16}$ " x $\frac{1}{16}$ "	14 $\frac{1}{4}$ "	16 oz.
BW-1172	$\frac{1}{8}$ " x $\frac{1}{8}$ "	15"	17 oz.
BW-1173	$\frac{1}{4}$ " x $\frac{1}{4}$ "	16 $\frac{3}{8}$ "	18 oz.
BW-1174	$\frac{3}{8}$ " x $\frac{3}{8}$ "	17 $\frac{1}{2}$ "	19 oz.
BW-1175	$\frac{1}{2}$ " x $\frac{1}{2}$ "	18 $\frac{1}{2}$ "	19 oz.
BW-1176	$\frac{3}{4}$ " x $\frac{3}{4}$ "	19 $\frac{1}{4}$ "	20 oz.

### LARGE 12-POINT COMBINATION WRENCHES

Large size combination wrenches for application on heavy duty equipment and industrial use.

Part No.	Openings	Length	Weight
BW-1177	1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	21 $\frac{5}{16}$ "	3.0 lbs.
BW-1178	1 $\frac{3}{8}$ " x 1 $\frac{3}{8}$ "	22 $\frac{3}{4}$ "	3.9 lbs.
BW-1179	1 $\frac{1}{4}$ " x 1 $\frac{1}{4}$ "	22 $\frac{3}{4}$ "	3.8 lbs.
BW-1180	1 $\frac{3}{8}$ " x 1 $\frac{3}{8}$ "	26"	6.9 lbs.
BW-1181	1 $\frac{1}{2}$ " x 1 $\frac{1}{2}$ "	26"	6.7 lbs.
BW-1182	1 $\frac{3}{8}$ " x 1 $\frac{3}{8}$ "	26"	6.6 lbs.
BW-1183	2" x 2"	26"	6.4 lbs.

### METRIC-SIZE COMBINATION WRENCHES

Part No.	Pt.	Size MM	Length	Wgt.
BW-1109M	6	9	4 $\frac{5}{16}$ "	2 oz.
BW-1110M	12	10	5 $\frac{1}{8}$ "	2 oz.
BW-1111M	12	11	5 $\frac{7}{8}$ "	2 oz.
BW-1112M	12	12	6 $\frac{3}{8}$ "	3 oz.
BW-1113M	12	13	6 $\frac{5}{8}$ "	3 oz.
BW-1114M	12	14	7 $\frac{1}{2}$ "	4 oz.
BW-1115M	12	15	8 $\frac{3}{8}$ "	4 $\frac{1}{2}$ oz.
BW-1117M	12	17	9 $\frac{1}{8}$ "	6 oz.
BW-1119M	12	19	10"	8 oz.
BW-1121M	12	21	10 $\frac{7}{8}$ "	9 oz.
BW-1122M	12	22	11 $\frac{1}{8}$ "	10 oz.

BW-1020  
to  
BW-1025

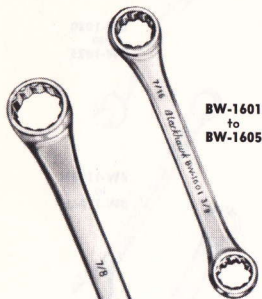
BW-1158H  
to  
BW-1166H

BW-1161  
to  
BW-1176

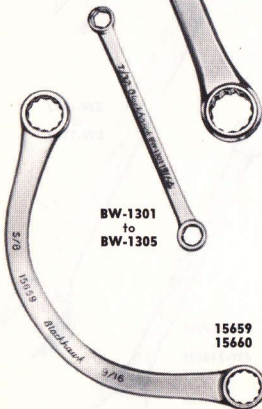
BW-1177  
to  
BW-1183

BW-1109M  
to  
BW-1122M





**BW-1601  
to  
BW-1605**



**BW-1258  
to  
BW-1268**

**BW-1301  
to  
BW-1305**

**15659  
15660**

## BOX END WRENCHES

New design insures better fit of box on nut. Better working angle gives greater leverage.

### DELUXE SHORT BOX ENDS, 15° 12-POINT

Drop forged for better balance and fit.

Part No.	Opening	Length	Wgt.
<b>BW-1601</b>	$\frac{3}{8}$ " x $\frac{7}{16}$ "	4"	$\frac{1}{2}$ oz.
<b>BW-1603</b>	$\frac{1}{2}$ " x $\frac{9}{16}$ "	$4\frac{3}{4}$ "	3 oz.
<b>BW-1605</b>	$\frac{5}{8}$ " x $1\frac{1}{16}$ "	$5\frac{1}{2}$ "	4 oz.

### DELUXE LONG BOX ENDS, 15° 12-POINT

Drop forged from finest alloy steel. Carefully broached in twelve point. Smallest number of non-duplicating sizes gives complete range from  $\frac{3}{8}$ " up to 1".

Part No.	Opening	Length	Wgt.
<b>BW-1258</b>	$\frac{3}{8}$ " x $\frac{7}{16}$ "	$7\frac{3}{8}$ "	4 oz.
<b>BW-1260</b>	$\frac{1}{2}$ " x $\frac{9}{16}$ "	$8\frac{1}{2}$ "	6 oz.
<b>BW-1262</b>	$\frac{5}{8}$ " x $1\frac{1}{16}$ "	$9\frac{9}{16}$ "	7 oz.
<b>BW-1264</b>	$\frac{3}{4}$ " x $2\frac{5}{32}$ "	$10\frac{5}{16}$ "	12 oz.
<b>BW-1266</b>	$1\frac{3}{16}$ " x $\frac{7}{8}$ "	$12\frac{1}{8}$ "	12 oz.
<b>BW-1268</b>	$1\frac{5}{16}$ " x 1"	$12\frac{1}{4}$ "	22 oz.

## IGNITION BOX END WRENCHES

Mighty midgets for work on carburetors, starters, generators and electrical work in general.

Part No.	Opening	Length	Wgt.
<b>BW-1301</b>	$\frac{3}{16}$ " x $1\frac{3}{4}$ "	3"	$\frac{1}{2}$ oz.
<b>BW-1302</b>	$\frac{7}{32}$ " x $1\frac{5}{4}$ "	$3\frac{1}{4}$ "	$\frac{1}{2}$ oz.
<b>BW-1304</b>	$\frac{1}{4}$ " x $\frac{7}{32}$ "	$3\frac{7}{16}$ "	$\frac{1}{2}$ oz.
<b>BW-1305</b>	$\frac{5}{16}$ " x $1\frac{1}{32}$ "	$3\frac{11}{16}$ "	$\frac{1}{2}$ oz.

## HALF MOON BOX ENDS

Often referred to as Obstruction Wrenches, these Tools are rightly named. They actually will work around corners and they have many other uses, on such work as: manifolds, starters and carburetors.

Number	Size Openings	Length	Wgt.
<b>15659</b>	$\frac{9}{16}$ " x $\frac{5}{8}$ "	$7\frac{3}{4}$ "	5 oz.
<b>15660</b>	$1\frac{1}{16}$ " x $\frac{3}{4}$ "	$7\frac{3}{4}$ "	5 oz.

## BOX END WRENCHES

These modern Wrenches have comfortable handles. Accurately broached openings — perfect balance, neat trim heads. Made from Alloy Steel for long rugged use. Triple plated copper, nickel and chrome.

### DELUXE LONG BOX ENDS, 45° 12-POINT

45° offset used for "hard to reach places."

Part No.	Opening	Length	Wgt.
BW-1208	3/8" x 7/16"	7 5/8"	4 oz.
BW-1210	1/2" x 9/16"	8 1/2"	6 oz.
BW-1212	5/8" x 1 1/16"	9 5/8"	7 oz.
BW-1214	3/4" x 25/32"	11 1/8"	12 oz.
BW-1216	13/16" x 7/8"	12 9/16"	18 oz.
BW-1218	15/16" x 1"	14 1/4"	22 oz.
BW-1220	1 1/16" x 1 1/8"	15 1/2"	22 oz.
BW-1222	1 1/4" x 1 5/16"	17 5/8"	2 3/8 lbs.
BW-1224	1 1/4" x 1 3/8"	18 1/2"	2 1/2 lbs.
BW-1226	1 7/16" x 1 5/8"	23 1/4"	4 lbs.

### DELUXE SHORT BOX ENDS, 45° 12-POINT

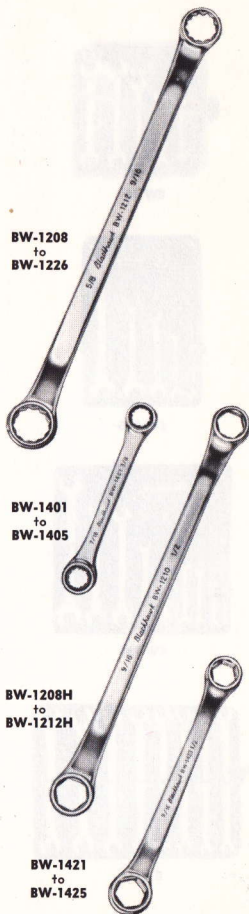
Part No.	Opening	Length	Net Wgt. Each
BW-1401	3/8" x 7/16"	4 1/2"	1 1/2 oz.
BW-1403	1/2" x 9/16"	5 3/8"	3 oz.
BW-1405	5/8" x 1 1/16"	6"	4 oz.

### 6-POINT 45° LONG BOX END WRENCHES

Part No.	Openings	Length	Weight
BW-1208H	3/8" x 7/16"	7 5/8"	3 oz.
BW-1210H	1/2" x 9/16"	8 1/2"	6 oz.
BW-1212H	5/8" x 1 1/16"	9 5/8"	7 oz.

### 6-POINT 45° SHORT BOX END WRENCHES

Part No.	Openings	Length	Weight
BW-1421	3/8" x 7/16"	4 1/2"	1 oz.
BW-1423	1/2" x 9/16"	5 3/8"	3 oz.
BW-1425	5/8" x 1 1/16"	6"	4 oz.





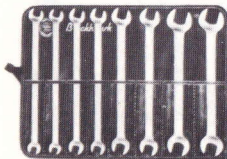
**EW-20**



**EW-105**



**EW-109**



**EW-11**

## MINIATURE OPEN-END WRENCH SET

Part No.	Size	Part No.	Size
<b>H-10</b>	$\frac{3}{16}$ " x $\frac{7}{32}$ "	<b>H-16</b>	$\frac{3}{8}$ " x $\frac{7}{16}$ "
<b>H-12</b>	$\frac{1}{4}$ " x $\frac{9}{32}$ "	<b>H-18</b>	$\frac{13}{32}$ " x $\frac{15}{32}$ "
<b>H-14</b>	$\frac{5}{16}$ " x $\frac{11}{32}$ "	<b>EW-20K</b>	Plastic Kit
<b>Set No. EW-20</b>	5-Piece Set		Wgt. 6 oz.

## OPEN-END SET

Part No.	Openings	Part No.	Openings
<b>4020</b>	$\frac{1}{4}$ " x $\frac{5}{16}$ "	<b>4729</b>	$\frac{5}{8}$ " x $\frac{3}{4}$ "
<b>4723</b>	$\frac{3}{8}$ " x $\frac{7}{16}$ "	<b>4731B</b>	$\frac{13}{16}$ " x $\frac{7}{8}$ "
<b>4725B</b>	$\frac{1}{2}$ " x $\frac{7}{16}$ "	<b>EW-105K</b>	Plastic Kit
<b>Set No. EW-105</b>	5-Piece Set		Wgt. 1 lb. 5 oz.

## OPEN-END SET

Part No.	Openings	Part No.	Openings
<b>4020</b>	$\frac{1}{4}$ " x $\frac{5}{16}$ "	<b>4731A</b>	$\frac{3}{4}$ " x $\frac{7}{8}$ "
<b>4723</b>	$\frac{3}{8}$ " x $\frac{7}{16}$ "	<b>4033C</b>	$\frac{15}{16}$ " x 1"
<b>4725B</b>	$\frac{1}{2}$ " x $\frac{7}{16}$ "	<b>4735A</b>	$1\frac{1}{16}$ " x $1\frac{1}{8}$ "
<b>4727</b>	$\frac{9}{16}$ " x $\frac{5}{8}$ "	<b>4039B</b>	$1\frac{1}{4}$ " x $1\frac{1}{2}$ "
<b>4027</b>	$1\frac{1}{32}$ " x $1\frac{1}{16}$ "	<b>EW-109K</b>	Plastic Kit
<b>Set No. EW-109</b>	9-Piece Set		Wgt. 5 lb. 2 oz.

## TAPPET WRENCH SET

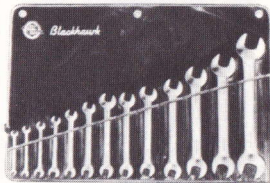
Part No.	Openings	Part No.	Openings
<b>(2)1090G</b>	$\frac{7}{16}$ " x $\frac{17}{32}$ "	<b>(2)1092F</b>	$\frac{5}{8}$ " x $1\frac{1}{16}$ "
<b>(2)1090D</b>	$\frac{1}{2}$ " x $\frac{7}{16}$ "	<b>(2)1094</b>	$\frac{3}{4}$ " x $\frac{7}{8}$ "
		<b>EW-11K</b>	Plastic Kit
<b>Set No. EW-11</b>	8-Piece Set		Wgt. 2 lb. 3 oz.



## OPEN-END SET

Part No.	Openings	Part No.	Openings
4020	1/4" x 5/16"	4729	5/8" x 3/4"
4721	5/16" x 3/8"	4731	3/4" x 13/16"
4723	3/8" x 7/16"	4731A	3/4" x 7/8"
4725	7/16" x 1/2"	4033C	15/16" x 1"
4725B	1/2" x 9/16"	4735A	1 1/16" x 1 1/8"
4727	9/16" x 5/8"	4039B	1 1/4" x 1 5/16"
4027	19/32" x 1 1/16"	EW-113K	Plastic Kit
			Wgt. 6 lb. 4 oz.

Set No. EW-113 13-Piece Set



EW-113

## 10-PIECE — IGNITION OPEN END WRENCH SET

	15° Angle	60° Angle		15° Angle	60° Angle
3114	13/64"	15/64"	3124	9/32"	5/16"
3116	7/32"	1/4"	3128	5/16"	9/32"
3118	15/64"	13/64"	3130	1 1/32"	3/8"
3120	1/4"	7/32"	3132	3/8"	1 1/32"
3122	17/64"	19/64"	3134	7/16"	1/2"
			EW-40K	Plastic Kit	
				Wgt. 8 oz.	

Set No. EW-40 10-Piece Set

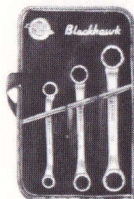


EW-40

## SHORT 45° 12-POINT BOX WRENCH SET

Part No.	Openings	Part No.	Openings
BW-1401	3/8" x 7/16"	BW-1405	5/8" x 1 1/16"
BW-1403	1/2" x 9/16"	BW-27K	Plastic Kit
			Wgt. 11 oz.

Set No. BW-27 3-Piece Set

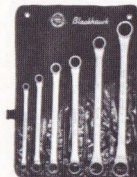


BW-27

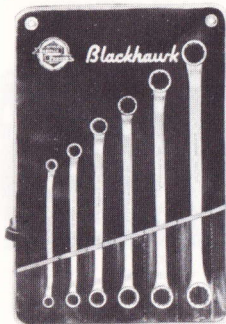
## LONG 15° BOX WRENCH SET

Part No.	Openings	Part No.	Openings
BW-1258	3/8" x 7/16"	BW-1264	3/4" x 25/32"
BW-1260	1/2" x 9/16"	BW-1266	13/16" x 7/8"
BW-1262	5/8" x 1 1/16"	BW-1268	15/16" x 1"
		BW-26K	Plastic Kit
			Wgt. 3 lb.

Set No. BW-26 6-Piece Set



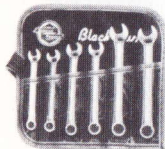
BW-26



**BW-25**



**BW-24**



**BW-23**



**BW-18**

## LONG 45° BOX WRENCH SET

Part No.	Openings	Part No.	Openings
<b>BW-1208</b>	3/8" x 7/16"	<b>BW-1214</b>	3/4" x 25/32"
<b>BW-1210</b>	1/2" x 9/16"	<b>BW-1216</b>	13/16" x 3/4"
<b>BW-1212</b>	5/8" x 11/16"	<b>BW-1218</b>	15/16" x 1"
		<b>BW-25K</b>	Plastic Kit
			Wgt.
<b>Set No. BW-25</b>	6-Piece Set		2 lb. 6 oz.

## COMBINATION SET

Part No.	Openings	Part No.	Openings
<b>BW-1161</b>	7/16"	<b>BW-1163</b>	9/16"
<b>BW-1162</b>	1/2"	<b>BW-1164</b>	5/8"
		<b>BW-24K</b>	Plastic Kit
			Wgt.
<b>Set No. BW-24</b>	4-Piece Set		13 oz.

## MINIATURE COMBINATION WRENCH SET

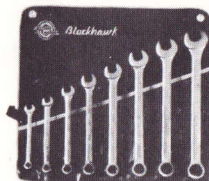
Part No.	Size	Part No.	Size
<b>BW-1020</b>	7/32"	<b>BW-1023</b>	9/16"
<b>BW-1021</b>	1/4"	<b>BW-1024</b>	11/32"
<b>BW-1022</b>	9/32"	<b>BW-1025</b>	3/8"
		<b>BW-23K</b>	Plastic Kit
			Wgt.
<b>Set No. BW-23</b>	6-Piece Set		6 oz.

## COMBINATION SET

Part No.	Openings	Part No.	Openings
<b>BW-1161</b>	7/16"	<b>BW-1164</b>	5/8"
<b>BW-1162</b>	1/2"	<b>BW-1165</b>	11/16"
<b>BW-1163</b>	9/16"	<b>BW-1166</b>	3/4"
		<b>BW-18K</b>	Plastic Kit
			Wgt.
<b>Set No. BW-18</b>	6-Piece Set		1 lb. 7 oz.

## COMBINATION WRENCH SET

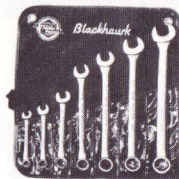
Part No.	Size	Part No.	Size
BW-1158H	5/16"	BW-1163H	9/16"
BW-1160H	3/8"	BW-1164H	5/8"
BW-1161H	7/16"	BW-1165H	11/16"
BW-1162H	1/2"	BW-1166H	3/4"
		BW-8K	Plastic Kit
			Wgt.
Set No. BW-8	8-Piece Set		1 lb. 14 oz.



**BW-8**

## COMBINATION SET

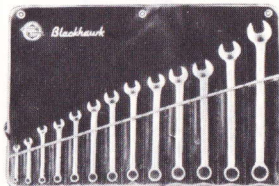
Part No.	Openings	Part No.	Openings
BW-1021	1/4"	BW-1162	1/2"
BW-1023	5/16"	BW-1163	9/16"
BW-1025	3/8"	BW-1164	5/8"
BW-1161	7/16"	BW-22K	Plastic Kit
			Wgt.
Set No. BW-22	7-Piece Set		1 lb. 1 oz.



**BW-22**

## COMBINATION SET

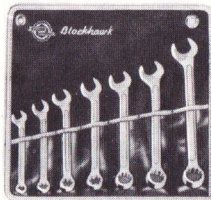
Part No.	Openings	Part No.	Openings
BW-1023	5/16"	BW-1166	3/4"
BW-1025	3/8"	BW-1167A	13/16"
BW-1161	7/16"	BW-1167	7/8"
BW-1162	1/2"	BW-1168	15/16"
BW-1163	9/16"	BW-1170	1"
BW-1164	5/8"	BW-1171	1 1/16"
BW-1165	11/16"	BW-20K	Plastic Kit
			Wgt.
Set No. BW-20	13-Piece Set		6 lb. 4 oz.



**BW-20**

## METRIC COMBINATION SET

Part No.	Size MM	Part No.	Size MM
BW-1109M	9	BW-1114M	14
BW-1110M	10	BW-1117M	17
BW-1111M	11	BW-1119M	19
BW-1112M	12	BW-37K	Plastic Kit
			Wgt.
Set No. BW-37	7-Piece Set		1 lb. 6 oz.



**BW-37**



## DUCKBILL TIN SNIPS

An exceptionally rugged snip for cutting metal, especially suited for body work. Cuts cleanly, features a comfortable grip and the leverage necessary for heavy-duty service.

Number	Length	Weight
ZT-1207	7"	6 oz.
ZT-1210	10"	12 oz.
ZT-1212	12"	24 oz.

## SCRATCH AWL

There are many uses for your Scratch Awl such as: accurate marking, aligning, piercing sheet metal and enlarging holes.

No.	Length	Weight
CT-1701	8 1/2"	1 oz.

## COTTER PIN EXTRACTOR

Remove cotter pins on brake assemblies, connecting rods, or remove grommets or lock rings with just a simple twist of the wrist.

No.	Weight
CT-1710	1 oz.

## FLARING TOOL

The most compact Flaring Tool set ever designed. One of the Blackhawk Self-Feeding Tube Cutters with a Blackhawk Flaring Tool takes care of no less than seven sizes, 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 5/8". The design makes for a quick job with accurately flared openings.

Number	Length	Wgt
ZT-1120	6"	1 lb. 8 oz.

## DOUBLE FLARING TOOL SET

The special design and construction of these double flaring tools will withstand the pressures necessary to double flare .040 tubings. The hardened bar assembly has five thread dies 3/16", 1/4", 5/16", 3/8" and 1/2" with corresponding adapters necessary in forming the double flare. The entire set is packaged in a sturdy metal case with full instructions.

Number

### ZT-1121 SET CONTAINS

Part No.	Description	Part No.	Description
ZT-1121-1	3/16" Adapter	ZT-1121-6	Yoke Assembly
ZT-1121-2	1/4" Adapter	ZT-1121-7	Wing Nut
ZT-1121-3	5/16" Adapter	ZT-1121-8	Complete Bar Assem.
ZT-1121-4	3/8" Adapter	ZT-1121-9	Tightening Bar
ZT-1121-5	1/2" Adapter	ZT-1121-10	Metal Box

## TUBE CUTTER

Useful pocket model Tube Cutter handles all sizes of tubing — copper, brass or lead — from 1/8" to 1" O.D. It features a razor-edge, tool steel replaceable cutting wheel, brass finished steel thumb screw rod and retractable reamer.

Number	Tool Complete	Wgt.
ZT-1149	Replacement Cutting Wheel	8 oz.
ZT-100049		

## STEEL TAPE RULES

Handy for all accurate measuring. Easily read black numerals on white face. Case is square, add two inches for inside measurements. Has rounded corners.

Number	Length	Wgt.
MT-1106	6'	4 oz.
MT-1108	8'	4 oz.
MT-1110	10'	4 oz.

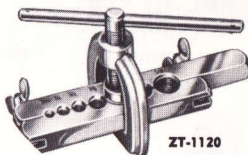
ZT-1207  
to  
ZT-1212



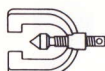
CT-1701



CT-1710



ZT-1120



ZT-1121-6



ZT-1121



ZT-1121-8



ZT-1121-1



ZT-1121-2



ZT-1121-3



ZT-1121-4



ZT-1121-5



ZT-1121-7



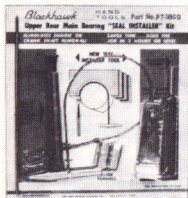
ZT-1121-9



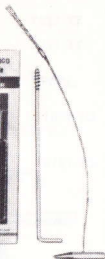
ZT-1149



MT-1106 to MT-1110



**ET-1800**



## UPPER REAR MAIN BEARING SEAL INSTALLER AND SEAL EXTRACTOR

This Blackhawk dual-purpose Seal Installer and Remover will eliminate a tedious job of seal extraction and installing. There's no need to remove the engine or crankshaft. Simply insert the installer in the groove, grip the seal with the mesh-lock and pull. Designed for heavy-duty use, the gripping device has a tensile strength of 1,000 pounds.

Part No.  
**ET-1800**

Weight  
8 oz.

## ETCHING PENCIL

Designed to permanently deep-etch identification marks on all tools and metal objects. Operates on 6 or 12 volt battery or transformer. The nose cone may be removed to adjust coil pressure or to replace the tip. Packaged on individual cards with heavy duty ground lead wire and complete instructions.

Part No.  
**ET-2010**  
**ET-2010-1**

Complete Unit  
Replaceable Tip Only

Weight  
6 oz.



**ET-2010**

## UNIVERSAL OIL FILTER WRENCH

Unique design permits positive grip and easy removal of "Spin-On" oil filters. The harder you pull the tighter it grips but will not crush or split filter. The pressure is exerted equally on entire filter surface.

Part No.  
**ZT-1620**

Weight  
12 oz.



## BOLT AND RIVET CUTTER

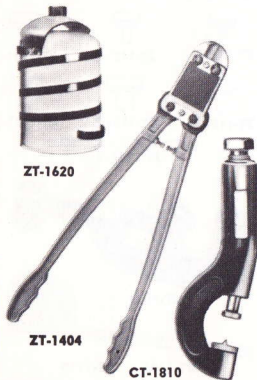
This powerful Cutter will snip a bolt as if it were an icicle! This tremendous force comes from the double cam action in the head and the long leverage of the tough, forged handles. It has but six major parts: the jaws, side plates (which cannot twist) and the forged handles. Full heat treated special alloy steel blades cut the toughest bolt. Cut at center of blade for greatest strength. Will cut  $\frac{3}{8}$ " soft bolts,  $\frac{3}{8}$ " in threads;  $\frac{5}{16}$ " soft chain,  $\frac{1}{4}$ " hard chain;  $\frac{3}{16}$ " alloy steel chain and  $\frac{1}{4}$ " steel strand or wire rope. You will find many uses for this Cutter in the garage, manufacturing plant or on all types of construction jobs.

No.  
**ZT-1404**  
**ZT-140004**

Length  
21"  
Extra Jaw

Weight  
5 lb.  
8 oz.

**ZT-1620**



**ZT-1404**

**CT-1810**

## NUT BUSTER

Here is the most efficient nut-cracking tool available. It works in the tightest corners anywhere from bumper to bumper. It explodes the most tightly frozen nuts at a twist of the wrench by bringing 25,000 lbs. of pressure to bear on the nut, and yet it cannot damage the bolt.

Part No.	Description	Length	Weight
<b>CT-1810</b>	Universal Nut Buster	7 1/4"	1 lb. 4 oz.
<b>CT-1810-1</b>	Chisel		
<b>CT-1810-2</b>	Pusher		
<b>CT-1810-3</b>	Ball Bearings (Pair)		
<b>CT-1810-4</b>	Forcing Screw		

## ALUMINUM SCREW STARTERS

When the blade is inserted in the slot, a slight turn releases the center section of the blade which rotates and exerts a positive grip upon the screw slot. Thus, firmly anchored, it is a simple matter to start the screw with one hand whether inserting or backing off the screw.

Number	Length	Wgt.
ST-1166	2 1/2"	2 oz.
ST-1167	5 "	4 oz.
ST-1168	9 "	6 oz.

## MAGNET TOOLS

The Blackhawk Magnet Tool picks up and holds small parts . . . even works around corners. The business end contains a powerful permanent magnet and is arranged on a pivot which can be rotated 120° right or left. The aluminum shaft with knurled handle provides a firm, secure grip.

The Midget size tool is the ideal size for car radio and carburetor work. The Master size extends from a telescoped 16 1/2" length to 27" fully extended.

Number	Length	Wgt.
ZT-1190	9 1/4"	1 oz.
ZT-1193	16 1/2"	2 oz.

## MAGNETIC PICK-UP TOOLS

The Magnetic Pick-Up Tool is the perfect retriever! No matter where you drop that small part, the powerful, permanent magnet will get it out. Head swivels a full 120° in either direction to get around corners. Completely nickel plated. Handles have easy-grip knurls.

No.	Length	Weight
ZT-1197	18"	2 oz.

## HOLDER RETRIEVER — FULLY FLEXIBLE

Hits an all-time high as an aid to mechanics faced with the job of starting a nut or screw in an inaccessible spot or retrieving parts that fall into hard-to-get-at places. FULLY FLEXIBLE... 18" in overall length... gets around wiring, tubing or projecting apparatus and into spaces too small for any other tool. Can be turned or twisted in limitless shapes and still holds its grip.

Number	Reach	Wgt.
ZT-1180	15"	4 oz.

## MUFFLER TOOL

Save over half the time when removing old, rusted, frozen, or corroded muffler connections. Simply split open tail pipe or muffler nipple and the connection slips out easily and cleanly, yet remains undamaged. The right angle handle keeps hands safely out of the way while keeping the cutting point always in view.

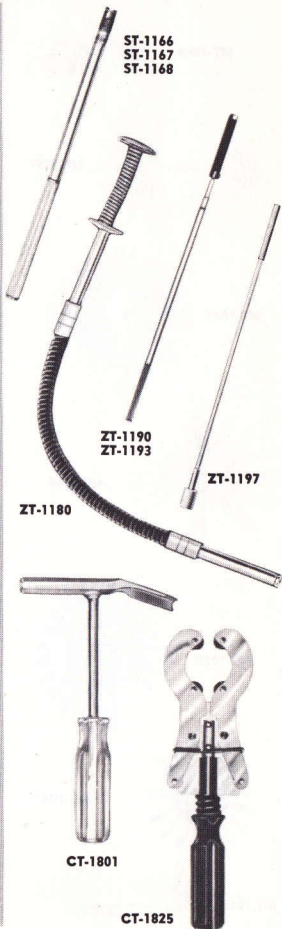
No.	Length	Weight
CT-1801	8"	6 oz.

## MUFFLER CUT-OFF TOOL

Save time, temper, money with the simplest, easiest to operate cut-off tool available. Expands simply by turning handle, eliminating clamps or locking devices. Locks into position from the bottom so overhead obstructions do not hinder and delay set-up. Does the job exactly right the first time. Range is 1 3/4" to 2 1/2".

No.	Length	Weight
CT-1825	10"	1 lb. 4 oz.

CT-1825-1 (Cutters)





## FEELER GAUGES

Blackhawk Feeler Gauges include every size and type for accurate work on spark plug gaps, distributor and ignition points and tappet adjustments. They are manufactured from the finest quality Swedish Steel to guarantee continued accuracy.

### STANDARD FEELER GAUGE

Contains ten  $3\frac{3}{16}$ " x  $\frac{1}{2}$ " blades of the following thicknesses: .002, .003, .004, .005, .006, .007, .008, .010, .012 and .015.

Number	Wgt.
<b>MT-1048</b>	2 oz.

### COMBINATION VALVE AND IGNITION FEELER GAUGE

Contains ten  $3$ " x  $\frac{1}{2}$ " blades on one end, of the following thicknesses: .002, .003, .004, .005, .006, .007, .008, .010, .013, .015; and twelve  $1\frac{3}{4}$ " x  $\frac{1}{4}$ " blades on the other end, of the following thicknesses: .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .022 and .025.

Number	Wgt.
<b>MT-1047</b>	4 oz.

### ALL PURPOSE FEELER GAUGE

Contains twenty-five  $3\frac{3}{16}$ " x  $\frac{1}{2}$ " blades of the following thicknesses: .0015, .002, .003, .004, .005, .006, .007, .008, .009, .010, .011, .012, .013, .014, .015, .016, .018, .020, .022, .024, .025, .028, .030, .032 and .035.

Number	Wgt.
<b>MT-1049</b>	3 oz.

### CHEVROLET FEELER GAUGE

Contains eight  $3\frac{3}{16}$ " x  $\frac{1}{2}$ " regular blades in the following sizes: .006, .007, .008, .010, .012, .013, .015, .020. Four  $3\frac{3}{16}$ " x  $\frac{1}{4}$ " Ignition Blades: .016, .018, .020, .022. Three 90° offset wire blades: .032, .035, .040. One electrode bending tool.

Number	Wgt.
<b>MT-1044</b>	2 oz.

### FORD FEELER GAUGE

Contains thirteen step-ground  $3\frac{3}{16}$ " x  $\frac{1}{2}$ " Go-No-Go blades of the following thicknesses: .010-.012, .011-.013, .012-.014, .013-.015, .014-.016, .015-.017, .016-.018, .017-.019, .018-.020, .019-.021, .021-.023, .024-.026, .025-.027.

Four  $3\frac{3}{16}$ " x  $\frac{1}{4}$ " Ignition Blades, .015, .016, .020, .025. Three 90° offset wire blades: .025, .028, .035.

Two straight wire blades: .017, .030.

One electrode bending tool.

Number	Wgt.
<b>MT-1039</b>	2 oz.

### Services Domestic and Foreign Cars

Contains sixteen  $1\frac{3}{4}$ " x  $\frac{1}{4}$ " blades of the following thicknesses: .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .022, .024, .025, .028, .030, .032.

No.	Weight
<b>MT-1041</b>	$\frac{1}{2}$ oz.

### IGNITION FEELER GAUGE

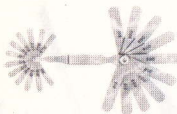
Contains twelve  $1\frac{3}{4}$ " x  $\frac{1}{4}$ " blades of the following thicknesses .011, .012, .013, .014, .015, .016, .017, .018, .019, .020, .022 and .025.

Number	Wgt.
<b>MT-1042</b>	2 oz.

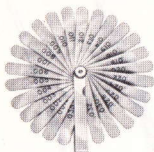
MT-1048



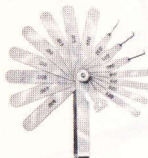
MT-1047



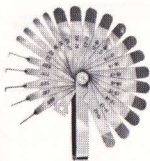
MT-1049



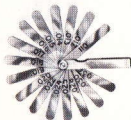
MT-1044



MT-1039

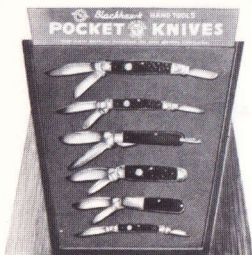


MT-1041



MT-1042





The following selection of Blackhawk pocket knives has these quality built-in features:

- Alloy steel blades
- Forged nickel silver bolsters
- Milled brass or nickel silver linings
- Finest quality cutlery steel springs

**No. KDB-6 Pocket Knife Counter and Wall Display Case**

Sturdy and attractive — 6 on display — Special locking feature for pilfer proofing

Included in the Knife Merchandiser No. KDB-6 are Knives No. KB-1 and KB-5 without charge to offset the cost of display.

**No. KB-1 Small Jr. Premium Stock Knife**

2 Blades. Bone stag handle. Actual size closed  $2\frac{3}{4}$  in.

**No. KB-5 Small Premium Stock Knife**

3 Blades. Bone stag handle. Actual size closed  $3\frac{1}{2}$  in.

**No. KB-10 Large Premium Stock Knife**

3 Blades. Bone stag handle. Actual size closed 4 in.

**No. KB-15 Electrician's Knife**

2 Blades. Coco Bolo type handle with shackle. Actual size closed  $3\frac{3}{4}$  in.

**No. KB-20 Medium Jack Knife**

2 Blades. Bone stag handle. Actual size closed  $3\frac{3}{8}$  in.

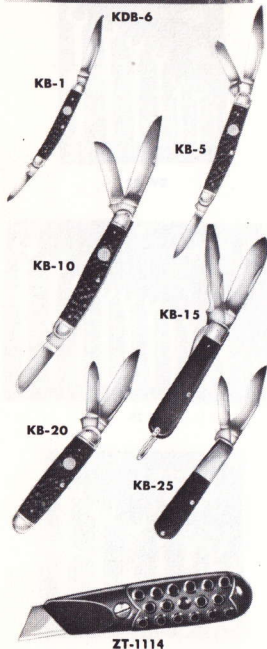
**No. KB-25 Medium Barlow Jack Knife**

2 Blades. Bone stag handle. Actual size closed  $3\frac{5}{16}$  in.

**SHOP KNIFE**

This fine Shop Knife has a large handle to insure a firm comfortable grip. Invaluable for cutting gaskets, installing floor mats and a thousand other cutting jobs.

Number	Length	Wgt.
ZT-1114	6"	4 oz.
ZT-1115 (Extra Blade)		



## 15-BLADE GO-NO-GO GAUGE

Contains fifteen  $3\frac{3}{16}$ " x  $\frac{1}{2}$ " blades of following thicknesses: .006-.008, .007-.009, .008-.010, .009-.011, .010-.012, .011-.013, .012-.014, .013-.015, .014-.016, .015-.017, .016-.018, .017-.019, .018-.020, .019-.021, .020-.022.

No. MT-1043 Weight 1 oz.

## REGULAR SPARK PLUG WIRE GAUGE

Consists of 1 electrode bender and 8 wire gauges sizes: .022, .025, .028, .030, .032, .035, .038 .040.

No. MT-1040 Weight 1 oz.

## BRAKE ADJUSTING FEELER GAUGE

Contains nine  $4$ " x  $\frac{1}{4}$ " blades in the following thicknesses for checking brake clearances: .002, .004, .005, .006, .007, .008, .010, .012, .015.

Number MT-1045 Wgt. 2 oz.

## PISTON FEELER GAUGE

Contains eight  $9$ " x  $\frac{1}{2}$ " blades of the following thicknesses: .002, .003, .004, .005, .006, .008, .010 and .015.

Number MT-1046 Wgt. 3 oz.

## COMBINATION O.H.V. GAUGE

Contains seven  $3\frac{3}{16}$ " x  $\frac{1}{2}$ " blades with  $45^\circ$  offset of the following thicknesses: .018, .019, .020, .021, .024, .025, .026 and four straight  $3\frac{3}{16}$ " x  $\frac{1}{2}$ " in the following thicknesses: .015, .016, .018 and .019. This gauge especially useful on Ford, Mercury and Studebaker motors.

Number MT-1052 Length  $7\frac{1}{8}$ " Wgt. 2 oz.

## IGNITION FEELER GAUGE

Contains 7 sizes —  $3\frac{1}{4}$ " long: .013; .015; .016; .017; .020; .022; .025 — 7 units.

Number MT-1055 Wgt. 1 oz.

## FEELER GAUGE BLADE HOLDER

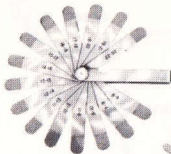
Made to handle separate feeler blades, easily and without damage. Metal slide ferrule clamps blade firmly. Different blades can be inserted in seconds. Blades listed below.

Number MT-1036 Single Blade Holder Wgt.  $\frac{1}{2}$  oz.

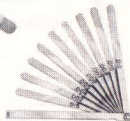
## FEELER GAUGE BLADES

Made of Swedish Steel in 12" lengths for use in above Holders. Blades plainly marked. Have hole in end so that by inserting bolt, you can make up set as desired.

MT-1001	.0015	MT-1011	.011	MB-1021	.021
MT-1002	.002	MT-1012	.012	MB-1022	.022
MT-1003	.003	MT-1013	.013	MB-1025	.025
MT-1004	.004	MT-1014	.014	MB-1027	.027
MT-1005	.005	MT-1015	.015	MB-1028	.028
MT-1006	.006	MB-1016	.016	MB-1030	.030
MT-1007	.007	MB-1017	.017	MB-1032	.032
MT-1008	.008	MB-1018	.018	MB-1035	.035
MT-1009	.009	MB-1019	.019	MB-1040	.040
MT-1010	.010	MB-1020	.020		



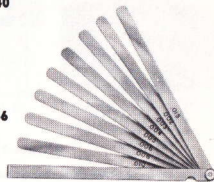
MT-1043



MT-1045



MT-1040



MT-1046



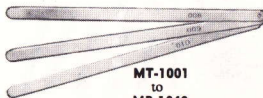
MT-1052



MT-1055



MT-1036



MT-1001  
TO  
MB-1040



## MIDGET IGNITION TOOLS

Blackhawk Ignition Tools are of perfect balance and designed for delicate work on magnetos, generators, carburetors, electrical parts — wherever fine work is important.

### POINT BENDER

Universal Point aligning tool designed to handle all makes including Ford except heavy duty Delco stationary points.

Number	Wgt.
<b>XT-1010</b>	4 oz.

### 1/2" DISTRIBUTOR WRENCH

Specially designed distributor wrench for those "hard to get at" distributor clamp studs. Fits Cadillac, and all Chrysler Corporation cars.

Number	Wgt.
<b>XT-1011</b>	4 oz.

### 9/16" DISTRIBUTOR WRENCH

Distributor wrench for Chevrolets, Buicks, Pontiacs and Oldsmobiles.

Number	Wgt.
<b>XT-1012</b>	5 oz.

### REMOTE STARTER SWITCH

Completely shockproof and 4 1/2 feet long, this durable, rubber insulated Extension permits the mechanic to start the car engine while working under the hood or on a creeper — saves time and trouble by eliminating the need for a helper when testing compression, vacuum or fuel pump.

Number	Length	Wgt.
<b>ZT-1815</b>	4 1/2 feet	12 oz.

### DISTRIBUTOR-CARBURETOR ADJUSTING TOOL

The 1/8" hex bit is used for Delco-Remy external adjustment distributors. The non-slip screw driver adapter with covering sleeve is used to adjust carburetors where obstructions hamper visual observation or use of regular screw driver. Constructed of special "Non-Kink" flexible steel shaft — shockproof plastic handle — specially hardened steel bit — all for long rugged wear.

Number		Wgt.
<b>XT-1014</b>	Complete Tool	4 oz.
<b>XT-1014-1</b>	Carburetor Socket	

### 5-PIECE IGNITION SET

A handy Ignition Set for general use. Packed in fibre box.

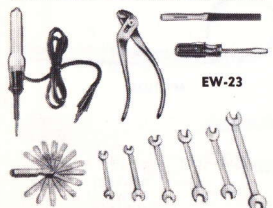
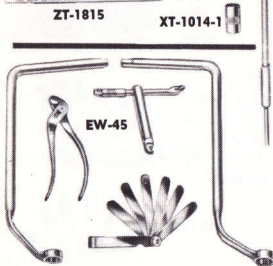
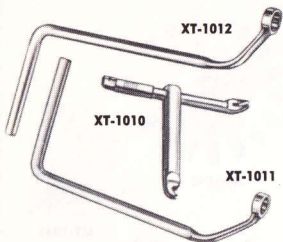
<b>XT-1010</b> Point Bender	<b>MT-1055</b> Feeler Gauge
<b>XT-1011</b> 1/2" Distributor Wrench	<b>PT-1251</b> Ignition Plier
<b>XT-1012</b> 9/16" Distributor Wrench	
Number	Wgt.
<b>EW-45</b> 5-Piece Set	2 lbs.

### 11-PIECE IGNITION SET

<b>MT-1041</b> Feeler Gauge	<b>PT-1251</b> Ignition Pliers
<b>ET-3000</b> Electric Tester	<b>FT-1001</b> Contact File
<b>ST-1214</b> Spark Plug Testing Screw Driver	

#### Open End Wrenches

<b>H-10</b> 3/16" x 3/32"	<b>H-14</b> 5/16" x 1/32"	<b>H-18</b> 13/32" x 1/32"
<b>H-12</b> 1/4" x 3/32"	<b>H-16</b> 3/8" x 1/16"	<b>4725</b> 7/16" x 1/2"
No.	Weight	
<b>EW-23</b>	11-Piece Set	1 lb. 7 oz.



## ELECTRIC TESTER

Locating breaks and shorts in electric circuits is always a time consuming job that does not pay big returns. Simply attaching ground clip to car and with needle point, test the circuit. If circuit is OK, bright light glows in plastic handle of Tester. Point is sharp enough to push through insulation of cable. Use Tester on batteries, ignition timing, around circuits of lamps, switches, head, tail, stop and dome lights, starter coils or any place that you are looking for electrical trouble. Can also be used on radio and similar circuits. Complete with four foot lead wire and insulated spring grounding clip.

No.	Weight
<b>ET-3000</b>	4 oz.
<b>ET-3000-1</b>	

Bulb only

## IMPROVED AUDIOSCOPE

An improved sensitive mechanic's stethoscope for locating trouble spots. Detects sounds not normally heard in moving parts such as bearing knocks, piston slaps, noisy valves, rear end noises, body squeaks, distributor bearings, vacuum leaks, air leaks and water pump squeaks.

<b>ET-3010</b>	8 oz.
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## SNAP-GAP POINT SETTING TOOL

This precision kit facilitates the quick and accurate setting of points for nearly every car since 1946 without the necessity of removing the distributor or rotating the engine. The Snap-Gap micro-precision ring converts the distributor cam into a perfect circle eliminating all need to adjust cam position. It aids in point adjustment where distributors are hard to reach and will also permit setting of dual points in one operation.

### SET CONTAINS

<b>EW-48A</b>	For Autolite "8" and Holly (Ford) "8"
<b>EW-48B</b>	For Delco "8" and Autolite "8"
<b>EW-48C</b>	For Autolite "4" and "6"
<b>EW-48D</b>	For Holly (Ford) "6"
<b>EW-48E</b>	For Delco "6"
<b>EW-48F</b>	Feeler Gauge

Part No.

<b>EW-48</b>	Snap Gap Set
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## IGNITION POINT FILE

Especially double cut for all types of ignition points. No. FT-1003 has handle end turned to form pocket clip. No. FT-1004 formed with flat handle.

Number	Length	Wgt.
<b>FT-1003</b>	5 1/4"	1 oz.
<b>FT-1004</b>	5 1/2"	1 oz.

## IGNITION POINT FILE DISPLAY

These cards displaying 12 No. FT-1004 Files sell on sight. Every garage doing ignition work needs a supply of these double cut Files. Guaranteed to file tungsten.

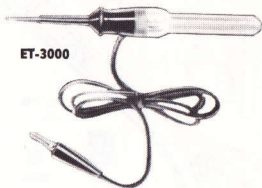
Number	Size	Wgt.
<b>FT-1001</b>	6 1/2" x 9"	6 oz.

## BATTERY LIFTERS

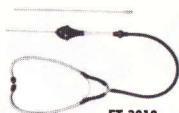
Its unique construction guarantees a firm grip automatically on any terminal post whether new or old. The strap is resistant to battery acids and it will give long and satisfactory service.

Number	Wgt.
<b>ZT-1601</b>	4 oz.
<b>ZT-1602</b>	6 oz.

Short Battery Lifter  
Long Battery Lifter



ET-3000



ET-3010



EW-48B



FT-1003



FT-1004



FT-1001

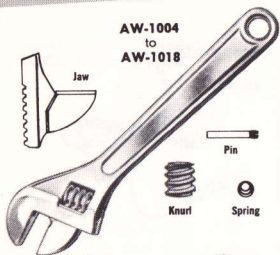


ZT-1602



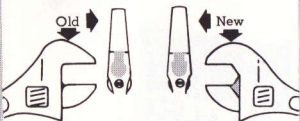
ZT-1601

AW-1004  
to  
AW-1018



AW-1099

AW-1098



AW-1208  
to  
AW-1218



AW-1310  
to  
AW-1318



AW-1350



## ADJUSTABLE WRENCHES

If you have used Adjustable Wrenches for a long time, you will appreciate this new improved Wrench. Its unique construction permits it to hold nuts more firmly than the old style Wrenches and it has added strength where it is most needed. The jaws are not only non-slip in their hold on the nut, but due to their extreme thinness, they can be used in many places where other Wrenches will not enter. 22½° Angle.

Number	Size	Capacity	Thickness of Head	Tip of Jaw	Wgt.
AW-1004	4"	1/2"	5/16"	1/8"	2 oz.
AW-1006	6"	3/4"	13/32"	7/32"	4 oz.
AW-1008	8"	15/16"	15/32"	1/4"	8 oz.
AW-1010	10"	1 1/8"	7/16"	3/8"	14 oz.
AW-1012	12"	1 5/16"	3/4"	17/32"	1 lb. 8 oz.
AW-1015	15"	1 3/4"	31/32"	19/32"	2 lbs. 4 oz.
AW-1018	18"	2 1/16"	1 1/16"	23/32"	2 lb. 10 oz.

## REPLACEMENT PARTS

Assortment of Replacement Parts for Adjustable Wrenches as listed in table below. Packed in sturdy box.

No. AW1099 (old style) No. AW1098 (new style)

Wrench Size	Jaws	Knurls	Pins	Springs
4"	4	4	4	4
6"	6	6	6	6
8"	6	6	6	6
10"	4	4	4	4
12"	2	2	2	2

## STILLSON WRENCHES

An improved type of Pipe Wrench completely drop forged. Engineered for heavy duty work. On many jobs nothing will perform so well as a Stillson Wrench and no wrench will give a firmer grip or stand a harder pull than a Blackhawk Stillson Wrench.

Number	Size	Capacity	Wgt.
AW-1208	8"	3/4"	11 oz.
AW-1210	10"	1"	1 lb. 8 oz.
AW-1214	14"	1 1/2"	2 lb. 10 oz.
AW-1218	18"	2"	4 lb.

## PIPE WRENCHES Heavy Duty Type

This Heavy Duty Pipe Wrench is made of pearlitic malleable alloy steel. Scientifically designed for maximum strength and safety with minimum amount of weight. Is heat-treated, has precision milled teeth, replaceable lower jaw.

Number	Sizes	Capacity	Weight
AW-1310	10"	1/8"-1 1/2"	2 lbs.
AW-1314	14"	1/4"-2"	3 1/2 lbs.
AW-1318	18"	1/4"-2 1/2"	5 1/4 lbs.

## UNIVERSAL CHAIN WRENCH

If you need to get a firm, slip-proof grip on round, hexagonal or square material, this Chain Wrench will do it. No matter what the shape is, it is held in a vise like grip. Excellent for all maintenance work, for steamfitters, plumbers and well drillers. It's an all purpose wrench. Handle made of forged steel, chain is heavy double link that will take tremendous torque.

Number	Capacity	Length	Weight
AW-1350	5/8" to 4 1/2"	11 1/2"	1 lb. 12 oz.



## LEVER JAW WRENCHES

The patented FINGERTIP release opens wrench instantly, no matter how tightly locked to the work — with just the pressure of a fingertip. Exerts over 1000 lbs. of pressure at heat-treated, forged jaws.

Number	Length	Wgt.
ZW-1116	6 1/2"	12 oz.
ZW-1120	10"	1 lb. 4 oz.

## RATCHETING BOX WRENCH

Convenient for use on long studs and in tight spaces, this heat treated Alloy Steel Wrench is practical for nuts which can not be reached with sockets.

Number	Size	Opening	Length	Wgt.
ZW-1042	1/4" x 5/16"	6 Pt.	4 1/4"	2 oz.
ZW-1044	3/8" x 7/16"	6 Pt.	5 1/2"	3 oz.
ZW-1046	1/2" x 9/16"	6 Pt.	6 3/4"	6 oz.
ZW-1068	5/8" x 1 1/16"	12 Pt.	8"	10 oz.
ZW-1069	5/8" x 3/4"	12 Pt.	8"	10 oz.
ZW-1070	3/4" x 7/8"	12 Pt.	9 1/4"	12 oz.

## HEX KEY WRENCHES

Since the widespread use of hollow head cap screws and set screws it becomes necessary to have a complete set of these Hex Key Wrenches. Used on all types of industrial and automotive equipment. Ends accurately shaped to fit screw. Wrenches are tough enough to loosen tightest screws.

Number	Size	Fits Set Screws	Fits HH Cap Screws	Length Short Arm	Length Long Arm	Wgt.
ZW-1002	1/16	6	..	9/16	1 3/4	1/2 oz.
ZW-1003	3/64	8	..	39/64	1 7/8	1/2 oz.
ZW-1004	3/32	10 & 12	..	21/32	2	1/2 oz.
ZW-1005	1/8	1/4	8	3/4	2 1/4	1/2 oz.
ZW-1006	5/32	5/16	10	27/32	2 1/2	1 oz.
ZW-1007	3/16	3/8	1/4	13/16	2 3/4	1 oz.
ZW-1008	1/32	7/16	5/16	11/32	3	1 oz.
ZW-1009	1/4	1/2	3/8	1 1/8	3 1/4	2 oz.
ZW-1010	5/16	5/8	3/8 & 7/16	1 1/4	3 3/4	2 oz.
ZW-1011	3/8	3/4	1/2	1 3/8	4 1/4	2 oz.
ZW-1013	1/2	3/8	3/4	1 1/2	5 1/4	3 oz.
ZW-1014	9/16	1 x 1 1/8	3/4	1 3/4	5 3/4	4 oz.
ZW-1015	5/8	1 1/4 x 1 3/8	1	1 7/8	6 1/4	5 oz.
ZW-1016	3/4	1 1/2	1 1/8 x 1 1/4	2 1/8	7 1/4	6 oz.

## HEX KEY WRENCH SET

Consists of the first 10 wrenches listed above. Complete range of wrenches for greatest utility are offered in this set. Contained in handy plastic case.

Number	Wgt.
ZW-58	6 oz.
ZW-58K Kit	

## HANDY HEX KEY WRENCH SET

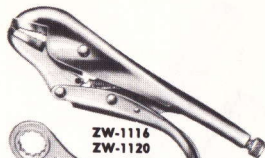
A dandy tool to have on hand because in one small case you have 7 of the most popular Hex Key Wrenches. Folds up to be carried in pocket.

Number	sizes: .050", 1/16", 3/64", 3/32", 1/8", 5/32", and 3/16".	Weight
ZW-1018		4 oz.

## ADJUSTABLE SPANNER WRENCH

Replaces 30 or 40 fixed size spanner wrenches. Two hooks and one handle are furnished. One hook is 3/4" thick to handle heavy turret nuts. The other is 3/8" thick for thin adjusting nuts. Both have 11 adjustments. Excellent for all tractor and heavy duty work.

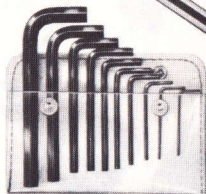
No.	Length	Weight
AW-1300	23"	12 lb.



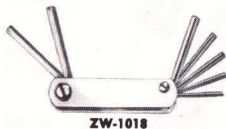
ZW-1042  
to  
ZW-1070



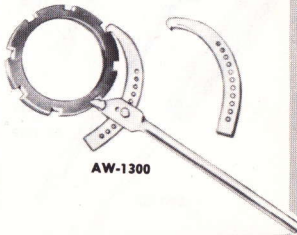
ZW-1002  
to  
ZW-1016



No. ZW-58



ZW-1018



AW-1300

**STANDARD BLADE—WOOD HANDLE**

A general purpose screw driver of exceptional strength and utility. Appreciated by the mechanic who wants a good quality tool to turn screws with, and not to use as a cold chisel or pry bar.

Number	Size of Blade	Width of Tip	Overall	Weight
<b>ST-164</b>	4"	1/4"	9"	2 oz.
<b>ST-166</b>	6"	5/16"	11 3/4"	4 oz.

**PHILLIPS SPECIAL ALLOY BLADE**

Equipped with fine clear maple handles for a good solid grip. Yet the blades are made from the finest alloy steel to insure a tight grip that will not slip.

Number	Phillips Screw Size	Blade Length	Wgt.
<b>ST-91</b>	No. 1 Pt.	3"	1 oz.
<b>ST-92</b>	No. 2 Pt.	4"	2 oz.
<b>ST-93</b>	No. 3 Pt.	6"	4 oz.

**PHILLIPS SCREW DRIVER—PLASTIC HANDLE**

The Phillips type, equipped with new patented exclusive handle design of extruded plastic. Extension of blade well into handle assures maximum torque.

Number	Phillips Screw Size	Bar Length	Wgt.
<b>ST-1081</b>	No. 1 Pt.	3"	2 oz.
<b>ST-1082</b>	No. 2 Pt.	4"	3 oz.
<b>ST-1083</b>	No. 3 Pt.	6"	5 oz.
<b>ST-1084</b>	No. 4 Pt.	8"	8 oz.

**STUBBY PHILLIPS SCREW DRIVERS**

These extruded plastic handle Stubby Phillips are designed for work where space is limited. Overall length only 3 3/8".

Number	Phillips Screw Size	Blade Length	Wgt.
<b>ST-1139</b>	No. 1 Pt.	1"	2 oz.
<b>ST-1140</b>	No. 2 Pt.	1 1/2"	2 oz.

**HEAVY ROUND SHANK SCREW DRIVER**

Analysis controlled selected quality chrome plated steel blades.

Number	Blade Length	Tip Width	Overall Length	Wgt.
<b>ST-1004</b>	4"	1/4"	7 1/2"	2 oz.
<b>ST-1006</b>	6"	5/16"	10 1/4"	4 oz.
<b>ST-1008</b>	8"	3/8"	13"	7 oz.
<b>ST-1010</b>	10"	3/8"	15"	8 oz.

**HEAVY SQUARE SHANK SCREW DRIVER**

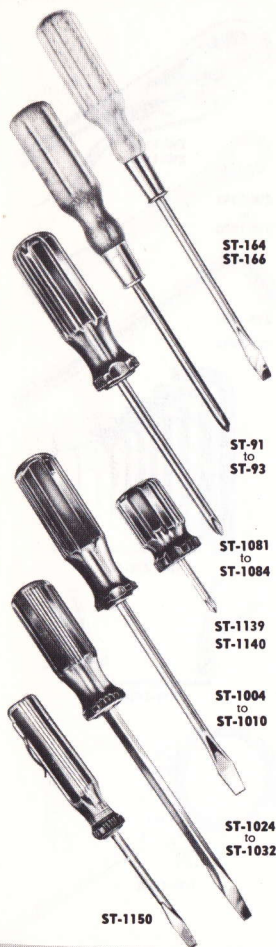
You will never turn the blade of any Blackhawk Screw Driver in its extruded plastic handle. These heavy square blades assure you super-strength when you need it.

Number	Blade Length	Tip Width	Overall Length	Wgt.
<b>ST-1024</b>	4"	1/4"	7 1/2"	3 oz.
<b>ST-1026</b>	6"	3/8"	10 1/4"	8 oz.
<b>ST-1028</b>	8"	7/16"	13"	10 oz.
<b>ST-1032</b>	12"	7/16"	17"	12 oz.

**POCKET SIZE SCREW DRIVER WITH CLIP**

Once you form the habit you will never be without one of these in your pocket. Its plastic handle assures insulation so that you can use it anywhere.

Number	Blade Length	Tip Width	Overall Length	Wgt.
<b>ST-1150</b>	2"	1/8"	4 3/8"	1 oz.



## ELECTRICIANS ROUND SHANK

Here's long reach plus slimness to get into tight places.

Number	Blade Length	Tip Width	Overall Length	Wgt.
ST-1043	3"	3/16"	5 3/4"	1 oz.
ST-1046	6"	3/16"	9 1/2"	2 oz.
ST-1048	10"	3/16"	13 1/2"	2 oz.

## ADJUSTING SCREW DRIVER

Generators in particular require strong compact Screw Drivers to reach many of the screws. These were made especially for that purpose.

Number	Blade Length	Tip Width	Overall Length	Wgt.
ST-1145	1 1/4"	3/16"	3 1/4"	2 oz.
ST-1146	1 3/4"	1/4"	3 5/8"	2 oz.

## CLUTCH TYPE SCREW DRIVER

For the new clutch or "figure 8" type screws which are becoming more and more popular. Complete coverage with 4 sizes. Extruded plastic handle for uniform toughness.

Number	Width of Tip	Blade Length	Overall	Wgt.
ST-1100	5/32"	3"	6 1/2"	3 oz.
ST-1102	3/16"	4"	7 1/2"	4 oz.
ST-1103	1/4"	5"	9 1/4"	6 oz.
ST-1104	5/16"	5"	9 1/4"	6 oz.

## RADIO SERVICE SCREW DRIVERS

A slim, light screw driver for mechanics and radio service men. Blade forged of best quality steel, fully hardened and tempered and finished in bright nickel.

No.	Blade Length	Width of Tip	Blade Dia.	Weight
ST-1064	4	1/8	1/8	1 oz.
ST-1066	6	1/8	1/8	1 oz.
ST-1068	8	1/8	1/8	1 oz.

## SURE GRIP SCREW HOLDING SCREW DRIVERS

This time and labor saving mechanism holds all types of screws on the screw driver blade for easy, one-handed operation. The flexible steel fingers open to grip the screw — hold it securely while driving.

No.	Blade Length	Width of Tip	Blade Square	Weight
ST-1189	2	1/8	1/8	1 oz.
ST-1191	4	1/8	1/8	1 oz.
ST-1192	6	1/8	1/8	2 oz.

## OFFSET SCREW DRIVER

Offset Screw Drivers with bits at right angles. Especially adapted to drag link adjustments. Hardened and tempered.

Number	Stock	Length	Weight
ST-1183	1/4	3	1 oz.
ST-1184	3/16"	4"	1 oz.
ST-1185	1/4"	4 1/2"	1 oz.

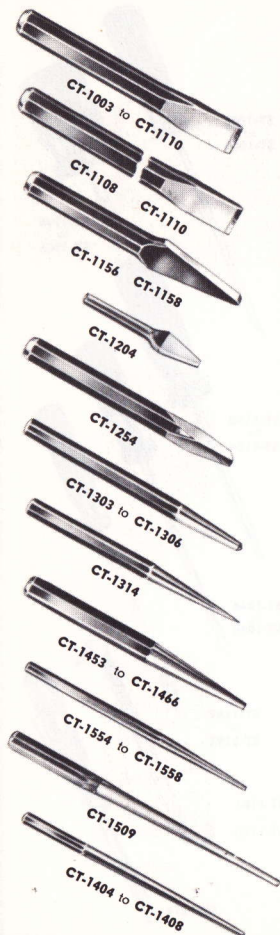
## SPARK DETECTING SCREW DRIVER

Two Tools in one — an efficient Spark Plug Tester and a real Screw Driver. Use it for testing spark plugs, auto and tractor ignition systems. Has a breakproof, shock-proof plastic handle.

Number	Blade Length	Blade Dia.	Wgt.
ST-1214	2 1/4"	1/8"	1 oz.





**CHISELS & PUNCHES**

Tools designed to "take it." Every Blackhawk Chisel is carefully heat treated to insure against either being too hard or too soft. All of these Tools can be resharpened. Great care has been taken in designing the cutting edge so that it will remain sharp under heavy wear, and care should be taken in redressing.

**HAND COLD CHISEL**

Number	Size Stock	Bit Width	Length	Wgt.
CT-1003	5/16"	3/8"	4 1/2"	1 oz.
CT-1004	3/8"	7/16"	5 1/2"	2 oz.
CT-1006	1/2"	5/8"	6 1/4"	6 oz.
CT-1008	5/8"	3/4"	7"	10 oz.
CT-1010	3/4"	3/4"	7 1/2"	13 oz.

**LONG COLD CHISEL**

Number	Size Stock	Bit Width	Length	Wgt.
CT-1108	5/8"	3/4"	12"	1 lb.
CT-1110	3/4"	7/8"	16 1/2"	1 lb. 12 oz.

**CAPE CHISEL**

Number	Size Stock	Bit Width	Length	Wgt.
CT-1156	1/2"	1/4"	6 1/4"	6 oz.
CT-1158	5/8"	3/4"	7"	9 oz.

**ROUND NOSE CHISEL**

Number	Size Stock	Bit Width	Length	Wgt.
CT-1204	3/8"	3/16"	5 1/2"	2 oz.

**DIAMOND POINT CHISEL**

Number	Size Stock	Bit Width	Length	Wgt.
CT-1254	1/2"	1/4"	6 1/4"	6 oz.

**CENTER PUNCH**

Number	Size Stock	Length	Wgt.
CT-1303	5/16"	4 1/4"	1 oz.
CT-1304	3/8"	5"	2 oz.
CT-1306	1/2"	6"	6 oz.

**PRICK PUNCH**

Number	Size Stock	Length	Wgt.
CT-1314	3/8"	5"	2 oz.

**PIN PUNCH**

Number	Pt. Diam.	Size Stock	Length	
CT-1453	1/8"	3/8"	6"	2 oz.
CT-1454	5/32"	3/8"	6 1/8"	2 oz.
CT-1456	3/16"	1/2"	6"	6 oz.
CT-1464	1/4"	1/2"	7"	6 oz.
CT-1466	5/16"	3/4"	7 1/2"	12 oz.

**LONG TAPER PUNCH**

Number	Pt. Diam.	Size Stock	Length	
CT-1554	1/8"	3/8"	8"	2 oz.
CT-1556	3/64"	1/2"	9"	6 oz.
CT-1558	1/32"	5/8"	10 1/2"	10 oz.

**LINING UP PUNCH**

Number	Pt. Diam.	Size Stock	Length	
CT-1509	1/4"	5/8"	14"	12 oz.

**HAND PUNCH**

Number	Pt. Diam.	Size Stock	Length	
CT-1404	1/16"	5/8"	5 1/2"	2 oz.
CT-1406	1/8"	1/2"	6 1/4"	4 oz.
CT-1408	3/16"	5/8"	7"	8 oz.

## CHISELS AND PUNCH SETS

Blackhawk Chisels and Punches are forged of special alloy steel and carefully heat treated to give maximum strength and durability. All sets are packaged in an attractive, handy vinyl kit.

### CHISEL AND PUNCH SET

A complete, well balanced assortment, carefully selected to cover all the needs of the master mechanic. Contains 14 pieces.

<b>CT-1003</b>	Hand Cold Chisel
<b>CT-1004</b>	Hand Cold Chisel
<b>CT-1006</b>	Hand Cold Chisel
<b>CT-1008</b>	Hand Cold Chisel
<b>CT-1010</b>	Hand Cold Chisel
<b>CT-1156</b>	Flat Cape Chisel
<b>CT-1254</b>	Diamond Pt. Chisel
<b>CT-1304</b>	Center Punch
<b>CT-1314</b>	Prick Punch
<b>CT-1453</b>	Pin Punch
<b>CT-1454</b>	Pin Punch
<b>CT-1456</b>	Pin Punch
<b>CT-1464</b>	Pin Punch
<b>CT-1466</b>	Pin Punch

Number		Wgt.
<b>CT-114</b>	Vinyl Kit	3 lb. 13 oz.

### COLD CHISEL SET

A complete assortment of cold chisels to cover all straight cutting operations.

<b>CT-1003</b>	Hand Cold Chisel
<b>CT-1004</b>	Hand Cold Chisel
<b>CT-1006</b>	Hand Cold Chisel
<b>CT-1008</b>	Hand Cold Chisel
<b>CT-1010</b>	Hand Cold Chisel

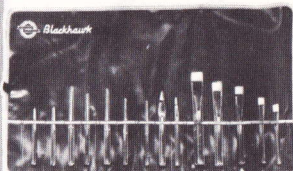
Number		Wgt.
<b>CT-105</b>	Vinyl Kit	2 lbs.

### PIN PUNCH SET

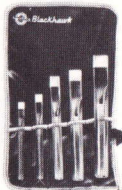
This set contains 5 of the most commonly used sizes.

<b>CT-1453</b>	Pin Punch
<b>CT-1454</b>	Pin Punch
<b>CT-1456</b>	Pin Punch
<b>CT-1464</b>	Pin Punch
<b>CT-1466</b>	Pin Punch

Number		Wgt.
<b>CT-205</b>	Vinyl Kit	1 3/4 lbs.



**CT-114**



**CT-105**



**CT-205**



CT-1650

CT-1617  
CT-1620

CT-1606  
CT-1610



CT-1660



CT-1662



CT-1666



CT-1668



CT-1664



CT-1670

## RIVET BUSTER

Number	Size Stock	Bit Width	Length	Wgt.
CT-1650	3/4"	3/4"	12"	1 lb. 8 oz.

## PRY BAR

Invaluable in removing bushings, bearings, grease cups, grease retainers, ball races and lifting cylinder heads. Can also be used as a lining up punch.

Number	Size Stock	Length	Head	Wgt.
CT-1617	9/16"	15"	1 7/8"	1 lb.
CT-1620	3/4"	18"		2 lb.

## PINCH BARS

For prying, alignment work, and many other purposes. One end has a long, sharp pointed taper and the other end a sharp, curved leverage blade.

Number	Size Stock	Length	Wgt.
CT-1606	1/2"	14"	12 oz.
CT-1610	5/8"	16"	1 lb. 4 oz.

## POWER HAMMER TOOLS

The following sequence of Blackhawk Power Tools has been designed to deliver the maximum driving power in most quality brand small power hammer. The use of shock resisting Alloy Steel assures a longer life of cutting edges. Polished shanks are round in design and are .401" in diameter to fit all models of small hammers. All Power Tools are packaged in an attractive blister pack.

## COLD CHISEL

Part No.	Length
CT-1660	6"

Designed for superior performance to work faster - easier - safer. Useful applications include — cut frame members — split nuts and bolts — cut tees and angles - bevel steel plates.

## RIVET AND BOLT CUTTER

Part No.	Length
CT-1662	6 1/4"

Forged from Alloy Steel — unique feature includes an offset blade. Applications include shearing rivets on bumper, grill, frame and brackets. Eliminates the hazard and use of torches.

## MUFFLER AND TAIL PIPE REMOVER

Part No.	Length
CT-1664	7 1/2"

Has the strength and design to quickly separate telescoped tubing without damage to the inner section. The cut curls away the metal from the tool assuring you of a neat, clean edge.

## OUTSIDE MUFFLER CUTTER

Part No.	Length
CT-1666	7 3/4"

Ideal tool designed for the application of cutting the muffler tubing from the tail pipe. The Alloy Steel Cutting Blade is thin in design, but precision ground for long rugged wear.

## TAIL PIPE CUT-OFF CHISEL

Part No.	Length
CT-1668	8"

New thin blade with a sharp concave edge leaves a clean edge without damage to muffler connections. Contains a single concave edge for maximum strength performance.

## BODY RIPPER

Part No.	Length
CT-1670	6 1/4"

Special metal cutter is a favorite of many auto body shops. Turns in a short radius, cuts rapidly. The clean cut saves added work in edging and welding.



## FILES

Mechanics have many uses for this fine group of Blackhawk Files. Each File is suited for a specific job. Quality deep cutting edges and sharp teeth design, assure quicker and easier work.

### MILL BASTARD

Number	Size	Wgt.
FT-1010	6"	1 oz.
FT-1011	8"	3 oz.
FT-1012	10"	7 oz.
FT-1013	12"	12 oz.
FT-1014	14"	1 lb. 2 oz.
FT-1015	16"	1 lb. 12 oz.

### ROUND BASTARD

Number	Size	Wgt.
FT-1040	6"	1/2 oz.
FT-1041	8"	1 oz.
FT-1042	10"	4 oz.
FT-1043	12"	8 oz.

### HALF ROUND BASTARD

Number	Size	Wgt.
FT-1050	8"	4 oz.
FT-1051	10"	8 oz.
FT-1052	12"	13 oz.
FT-1053	14"	1 lb. 4 oz.

### EXTRA SLIM TAPER

Number	Size	Wgt.
FT-1060	6"	1/2 oz.

### FLEXIBLE BODY FILE

Especially adapted for automobile bodies, fenders, door panels—wherever good surface finish is necessary.

Number	Size	Wgt.
BT-1300	Flat File, 8 teeth per in. 14"	8 oz.
BT-1301	Flat File, 7 teeth per in. 14"	8 oz.
BT-1302	Shell File, 8 teeth per in. 14"	8 oz.

### CHAIN SAW FILES

Specially made for working on all makes and models of chain saws on straight or curved surfaces.

Number	Length	Weight
FT-1082	8" x 7/32" Round	1 oz.
FT-1084	8" x 1/4" Round	1 oz.

### SOLID BODY FILE HOLDER

(Made from selected Maple)

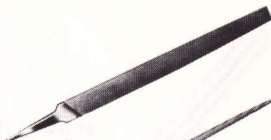
Holds the File securely without undue flexing which sometimes causes breakage. Because the File rests against a wooden support, it does not have a dulling effect on the curved teeth.

Number	Length	Wgt.
BT-1350	14"	3/4 lb.

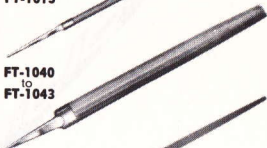
### COMBINATION FILE HOLDER

Will take either 12" or 14" body Files. Made of heavy steel which will stand up under severe use.

Number	Length	Wgt.
FT-1097	21"	1 1/2 lbs.



FT-1010  
to  
FT-1015



FT-1040  
to  
FT-1043



FT-1050  
to  
FT-1053



FT-1060



BT-1300  
BT-1301



BT-1302



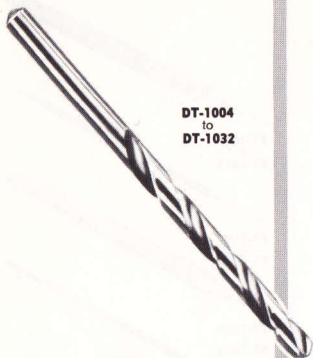
FT-1082  
FT-1084



BT-1350

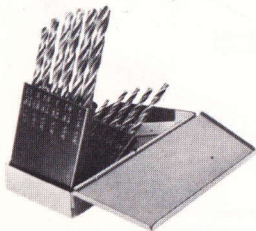
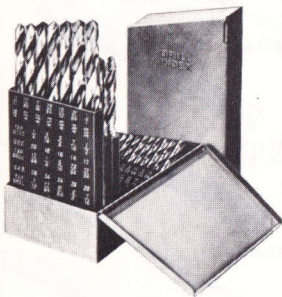


FT-1097



**DT-1004  
to  
DT-1032**

**DT-10**



**DT-12**

## HIGH SPEED DRILLS STRAIGHT SHANK

These famous Blackhawk Drills, constructed for all purpose work, are ideal for Automotive, Aircraft and Industrial fields.

Manufactured from the highest grade of Alloyed High Speed Steel obtainable, Blackhawk Drills continue to cut accurately and true at frictional heat temperatures up to 1200°.

Number	Diam.	Number	Diam.
DT-1004	1/16"	DT-1019	1 7/64"
DT-1005	3/64"	DT-1020	5/16"
DT-1006	3/32"	DT-1021	21/64"
DT-1007	7/64"	DT-1022	11/32"
DT-1008	1/8"	DT-1023	23/64"
DT-1009	9/64"	DT-1024	3/8"
DT-1010	5/32"	DT-1025	25/64"
DT-1011	11/64"	DT-1026	13/32"
DT-1012	3/16"	DT-1027	27/64"
DT-1013	13/64"	DT-1028	7/16"
DT-1014	7/32"	DT-1029	27/64"
DT-1015	15/64"	DT-1030	15/32"
DT-1016	1/4"	DT-1031	31/64"
DT-1017	17/64"	DT-1032	1/2"
DT-1018	9/32"		

## HIGH SPEED DRILL SETS 29-PIECE HIGH SPEED DRILL SET

A fine combination: High Speed Drills in Handy Index Container — every size from 1/16" to 1/2" by 64ths. The complete Set for professional mechanics.

Number	Weight
DT-10	3 lbs., 8 oz.

## 13-PIECE HIGH SPEED DRILL SET

Contains 13 Drills in sizes 1/16" to 1/4" by 64ths. Ideal for the small garage or general repair shop. Packed in convenient Index Container.

Number	Weight
DT-12	7 oz.

Blackhawk Taps and Dies are made of the highest quality carbon alloy steel. Laboratory controlled, heat treatment and modern production methods insure long life and clean, accurate threads. All dies are double hex, either  $\frac{3}{8}$ " or 1" enabling the mechanic to use them with a wrench or socket to reach inaccessible spots.

## CARBON HAND TAPS

Part Number	Tap Size	Weight Per Doz.
DT-1101 *	4 x 36	3 oz.
DT-1102	4 x 40	3 oz.
DT-1103	5 x 40	3 oz.
DT-1104 *	6 x 32	3 oz.
DT-1105 *	8 x 32	4 oz.
DT-1106 *	10 x 24	5 oz.
DT-1107 *	10 x 32	5 oz.
DT-1108 *	12 x 24	6 oz.
DT-1109	14 x 20	7 oz.
DT-1201	$\frac{3}{8}$ x 24	5 oz.
DT-1202 *	$\frac{1}{4}$ x 20	6 oz.
DT-1203 *	$\frac{3}{8}$ x 18	8 oz.
DT-1204 *	$\frac{3}{8}$ x 16	12 oz.
DT-1205 *	$\frac{3}{8}$ x 14	18 oz.
DT-1206 *	$\frac{1}{2}$ x 13	24 oz.
DT-1207 *	$\frac{1}{4}$ x 28	6 oz.
DT-1208 *	$\frac{3}{8}$ x 24	8 oz.
DT-1209 *	$\frac{3}{8}$ x 24	12 oz.
DT-1210 *	$\frac{3}{8}$ x 20	18 oz.
DT-1211 *	$\frac{1}{2}$ x 20	24 oz.
DT-1301 *	$\frac{1}{4}$ Pipe	12 oz.
DT-1302	$\frac{1}{4}$ Pipe	24 oz.

## TAPS

Part Number	Item	Weight Per Doz.
DT-1501 *	Die Stock	4 1/2 lbs.
DT-1502 *	Die Stock	7 lbs.
DT-1601	T Tap Wrench	1 1/2 lbs.
DT-1602 *	T Tap Wrench	3 lbs.
DT-1603 *	T Tap Wrench	5 lbs.
DT-1604	Tap and Reamer	4 1/2 lbs.
DT-1605 *	Wrench	5 lbs.

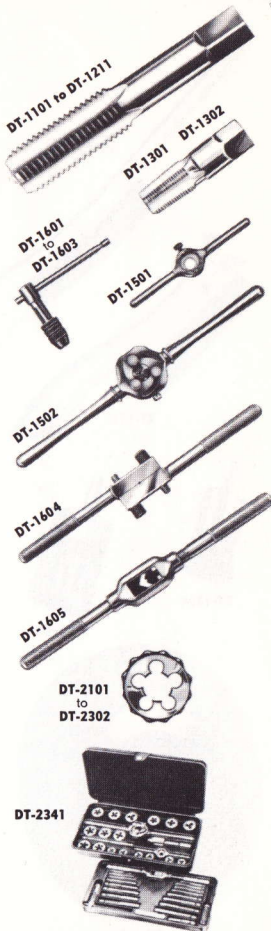
## DOUBLE HEX DIES

Part Number	Die Size	Weight Per Doz.
DT-2101 *	4 x 36	4 oz.
DT-2102	4 x 40	4 oz.
DT-2103	5 x 40	4 oz.
DT-2104 *	6 x 32	4 oz.
DT-2105 *	8 x 32	4 oz.
DT-2106 *	10 x 24	4 oz.
DT-2107 *	10 x 32	4 oz.
DT-2108 *	12 x 24	4 oz.
DT-2109	14 x 20	4 oz.
DT-2201	$\frac{3}{8}$ x 24	12 oz.
DT-2202 *	$\frac{1}{2}$ x 20	12 oz.
DT-2203 *	$\frac{3}{8}$ x 18	12 oz.
DT-2204 *	$\frac{3}{8}$ x 16	12 oz.
DT-2205 *	$\frac{3}{8}$ x 14	12 oz.
DT-2206 *	$\frac{1}{2}$ x 13	12 oz.
DT-2207 *	$\frac{1}{4}$ x 28	12 oz.
DT-2208 *	$\frac{3}{8}$ x 24	12 oz.
DT-2209 *	$\frac{3}{8}$ x 24	12 oz.
DT-2210 *	$\frac{3}{8}$ x 20	12 oz.
DT-2211 *	$\frac{1}{2}$ x 20	12 oz.
DT-2301 *	$\frac{1}{4}$ Pipe	10 oz.
DT-2302	$\frac{1}{4}$ Pipe	10 oz.

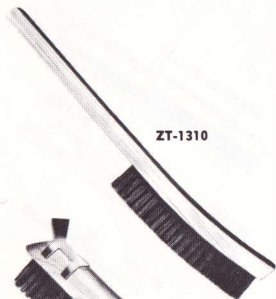
## PROFESSIONAL MECHANIC TAP AND DIE SET

The Blackhawk Professional Mechanic Set of taps and dies is conveniently packaged in an unbreakable, compact, plastic case. There is a separate compartment for each of the 41 tools. Set contains: one each of the above items that are starred (\*) plus 14 leaf screw pitch gauge and screwdriver.

Number	Type of Die	Weight
DT-2341	Solid Double Hex	4 lbs.
DT-2341-P-1	Box Only	







**ZT-1310**



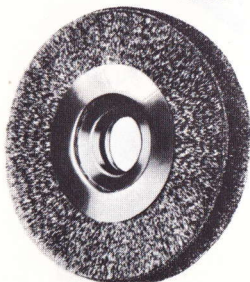
**ZT-1312**



**ZT-1301**



**ZT-1300**



**ZT-1303  
ZT-1305**

## TIRE AND RIM BRUSH

A sturdily made Brush with 19 rows, 3 wide, firmly secured in the wooden block. Because the wires are  $1\frac{1}{4}$ " long, they will give excellent service.

Number	Length	Wgt.
<b>ZT-1310</b>	14"	7 oz.

## HEAVY DUTY BRUSH AND SCRAPER

Has 17 rows, 4 wide, which insure fast work on large surfaces. Wires,  $1\frac{1}{4}$ " long. Wide hardened steel scraper attached. Unequalled for removing rust, dirt, grease and paint.

Number	Length Block Overall	Wgt.
<b>ZT-1312</b>	10"	8 oz.

## CARBON CLEANING END BRUSH

The heavy, wear-resisting crimped wire thoroughly and quickly removes hard carbon deposits from cylinder heads, blocks, tops of pistons, valve ports, etc. in a fraction of the time required by hand cleaning. For use on electric drills, pneumatic tools and flexible shafts. Length of wire out of cup, 1". Packed individually.

Number	Diameter Face	Diameter Shank	Wgt.
<b>ZT-1301</b>	$\frac{3}{4}$ "	$\frac{1}{4}$ "	$\frac{1}{2}$ lb.

## HEAVY DUTY KNOT END CLEANING BRUSH

Specially drawn wire forms heavy-duty knot ends, matched for true balance. Extra cutting points speed up cleaning of carbon, scale, rust, burrs, and paint. Especially useful in corners, around studs, or in pockets. Packed individually.

Number	Diameter Face	Diameter Shank	Wgt.
<b>ZT-1300</b>	$1\frac{1}{8}$ "	$\frac{1}{4}$ "	$\frac{1}{2}$ lb.

## HEAVY DUTY WIRE WHEELS

Widely used with portable tools and bench grinders for removing carbon, paint, rust and scale. Also for roughing up tires and tubes prior to vulcanizing. The countless special cleaning operations in the Automotive Field demand brushes which are outstanding. These Brushes are made from thousands of strands of tough, wear-resisting wire, encased between two steel plates, insuring a densely filled, even brushing surface. The Brushes are evenly trimmed and exactly balanced to produce efficient operation.

Arbor hole is adjusted to shaft by simply slipping into the standard opening of the Wheel the pair of sturdy Adapters which are furnished with each Brush.

Number	Diameter	Width of Face	Arbor Hole	Wgt.
<b>ZT-1303</b>	4"	$1\frac{1}{8}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ lb.
<b>ZT-1305</b>	6"	$1\frac{1}{8}$ "	$\frac{1}{2}$ "	1 $\frac{1}{2}$ lbs.

## HIGH SPEED HACK SAW BLADES

A Molybdenum Alloy Blade which will out-perform anything you have ever used before. It is especially designed for automotive work where "Moly" has earned its reputation as the finest cutting combination known for modern requirements. Use it with confidence for cutting nickel, high carbon steel and other tough alloys. Its wearing and cutting qualities will prove it to be the most economical Blade to use for every purpose.

Number	Length	Width	Thickness	Teeth Per Inch	Pkg.	Wgt. Pkg.
FT-1100	10"	1/2"	.025	18	10	4 oz.
FT-1101	10"	1/2"	.025	24	10	4 oz.
FT-1102	10"	1/2"	.025	32	10	4 oz.
FT-1103	12"	1/2"	.025	18	10	4 oz.
FT-1104	12"	1/2"	.025	24	10	4 oz.
FT-1105	12"	1/2"	.025	32	10	4 oz.

## FLEXIBLE HACK SAW BLADES

Where cutting is to be done on surfaces which are not extremely hard and where the possibility of flexing occurs, it is sometimes advisable to use the less expensive Alloy Blade. It is especially good for cutting at difficult angles and for ordinary work around the shop.

Number	Length	Width	Thickness	Teeth Per Inch	Pkg.	Wgt. Pkg.
FT-1120	10"	1/2"	.025	18	10	4 oz.
FT-1121	10"	1/2"	.025	24	10	4 oz.
FT-1122	10"	1/2"	.025	32	10	4 oz.
FT-1123	12"	1/2"	.025	18	10	4 oz.
FT-1124	12"	1/2"	.025	24	10	4 oz.
FT-1125	12"	1/2"	.025	32	10	4 oz.

## ADJUSTABLE HACKSAW FRAME

Handy adjustable hacksaw frame is ideal for general use. Adjustable frame locks in either 8", 10", and 12" blades.

Number	Length	Weight
FT-1202	14 1/2"	13 oz.

## DELUXE ADJUSTABLE HACKSAW FRAME

Our finest heavy duty steel hacksaw frame guards against breakage of high speed blades and has a non-breakable pistol grip handle. Adjustable frame locks in either 8", 10", and 12" blades.

Number	Length	Weight
FT-1204	13 3/4"	28 oz.

## SCREW EXTRACTORS

Nothing requires more strength and toughness than an Extractor to remove broken studs. These Extractors are hand forged to insure correct temper, angle and grip.

Number	Bolt. Diam.	Use Drill	Drill Depth	Wgt.
DT-2601	1/4" to 5/16"	5/32"	3/16"	1 1/2 oz.
DT-2602	5/16" to 3/8"	3/16"	3/16"	1 1/2 oz.
*DT-2603	3/8" to 7/16"	1/4"	1/4"	2 oz.
DT-2604	7/16" to 1/2"	5/16"	1/4"	3 oz.
DT-2605	1/2" to 5/8"	3/8"	5/16"	3 1/2 oz.

\*Recommended for Alemite Fittings.

## SCREW EXTRACTOR SET

Set is used for the removal of broken studs, set screws, pipe and alemite fittings. Packaged in a handy plastic kit. Specifications are listed above - Nos. DT-2601 through DT-2605

Set No.	Wgt.
DT-55	9 oz.

FT-1100  
to  
FT-1105

FT-1120  
to  
FT-1125

FT-1202

FT-1204

DT-2601

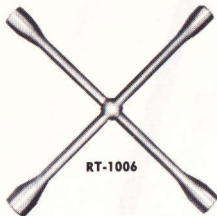
DT-2605

DT-55

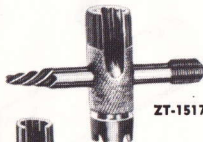
NR-212B



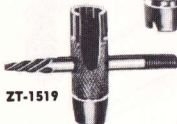
RT-1006



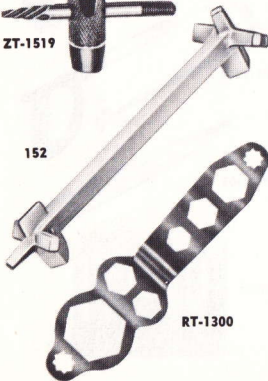
ZT-1517



ZT-1519



152



RT-1300

## TUBELESS TIRE BEAD EXPANDER

This completely safe, easy-to-use Bead Expander permits inflation of tubeless tires in a matter of seconds. Simply secure Expander around tire tread as shown, inflate Expander until tire beads are in position against the rim, and then inflate the tire.

Expander consists of a tough nylon cover over a pliable neoprene rubber tube—contains no steel bands to break or snap and folds to store easily in a minimum of space. Constructed to withstand air pressure up to 200 pounds and to resist acids, grease and solvents, this Expander will give long, useful service and is indispensable in the modern shop.

Number	Length	Wgt.
NR-212B	7 1/2 feet	1 1/2 lbs.
NR-212B P-1	extra valve	1 oz.

## FOUR-WAY RIM WRENCH

Has four most often used sizes of hex openings. 3/4", 13/16", 7/8" and 15/16". Shank is 3/4" diameter for strength. Sockets are deep broached for long bolts. Its extra length clears the deepest fenders of all late model cars.

Number	Length	Wgt.
RT-1006	20"	3 lbs.

## GREASE FITTING TOOLS

Here are a pair of real time savers — each Tool fits either Alemite or Zerk fittings. The Tool compactly contains three necessary parts: A socket to safely remove tightest fittings without breakage — an Extractor to surely back out broken fittings — and a Tap to rethread damaged holes. One Tool completes the job from start to finish.

Number	Size	Wgt.
ZT-1519	2 1/2"	3 1/2 oz.
ZT-1517	3 1/2"	3 1/2 oz.

## "MULTI-PLUG" WRENCH

Single piece construction. Fits practically all female plugs on every car. Forged of special steel and heat treated — cadmium finish. Wrench, plug sizes: 3/16", 1/32", 3/8", 7/16", 3/4", 7/16", 3/8", 1/2" square, 13/32" square and screwdriver slot.

No.	Length	Weight
152	8"	12 oz.

## UNIVERSAL DRAIN PLUG WRENCH

Will take care of most of the drain plugs on today's and yesterday's cars and trucks. This tool is a stamping and will render good service for a reasonable length of time.

Number	Length	Wgt.
RT-1300	11 1/4"	1/2 lb.



# Blackhawk Ball Joint Tools - Scrapers

## BALL JOINT SUSPENSION SOCKETS

These Special Ball Joint Suspension Sockets will make your work easier and faster in removing and installing the ball joints on Buicks, Oldsmobile F-85, Corvair, Plymouth, Dodge, Chrysler, and Valiants.

Part No.	Description
<b>60460</b>	¾" Drive Socket with 1 ⅞" opening for late model Plymouths and Dodges
<b>60468</b>	¾" Drive Socket with 2 ⅞" opening for late model Chryslers
<b>60470</b>	¾" Drive Socket with 1 ⅞" opening for Buick
<b>60472</b>	¾" Drive Socket with 2 ⅞" opening for Buick
<b>60474</b>	¾" Drive Socket with 1 ⅞" opening for Corvair, Oldsmobile F-85, and Buick Special
<b>60476</b>	¾" Socket with 1 ⅞" opening for Valiant



60460 to 60474



60476

## BALL JOINT SUSPENSION WRENCHES

These wrenches are specially designed for adjusting caster and camber on ball joint suspension.

Part No.	Description	Openings	Weight
<b>XT-1052</b>	For late model Fords	¾"	1 ½ lbs.
<b>XT-1053</b>	For late model Mercurys	¾"	12 oz.
<b>XT-1054</b>	For late model Lincolns	¾"	1 ½ lbs.
<b>XT-1055</b>	For late model Ramblers	1 ⅝"	1 lb.

XT-1052

XT-1053

XT-1054

XT-1055

## COMMUTATOR SMOOTHIE

A resurfacing tool designed to smooth commutators of auto generators, starting motors and similar equipment. Resurfacer at each end — one polish grade, the other finish grade. Handle and Resurfacers are non-conducting.

<b>FT-1070</b>	8 ½"	1 oz.
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FT-1070

## GASKET SCRAPER

A special Tool to provide a perfect surface when installing new gaskets. The 1 ⅞" wide flat blade of special steel quickly removes shellacked gaskets, rust or other materials leaving a perfectly smooth surface.

Number	Length	Wgt.
<b>ZT-1102</b>	11"	6 oz.

ZT-1102

## FLEXIBLE CARBON SCRAPER

A unique Tool that is made from a number of different segments which go after carbon independently. Will hit the low spots as well as the high places and do an efficient job.

Number	Length	Wgt.
<b>ZT-1100</b>	9"	5 oz.

ZT-1100

## DEGREASING SCRAPERS

Used widely by Lubrication men, but also borrowed by every mechanic in the shop because it speedily strips off grease from motors as well as chassis.

No.	Length	Weight
<b>ZT-1108</b>	7"	2 oz.
<b>ZT-1112 (Heavy duty)</b>	7 ¼"	3 oz.

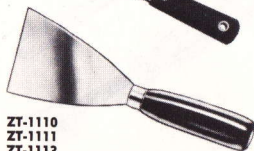
ZT-1108

ZT-1112

## CARBON SCRAPERS

When you want to scrape carbon, old gaskets or any other material that refuses to come off, use one of these Scrapers. They work like magic.

No.	Width	Length	Weight
<b>ZT-1110</b>	2 ¾"	8"	1 oz.
<b>ZT-1111</b>	1 ¼"	7 ¼"	2 oz.
<b>ZT-1113</b>	1 ¼"	7 ¼"	3 oz.



ZT-1110

ZT-1111

ZT-1113

## HYDRAULIC BRAKE CLIPS

This tool instantly adjusts to any size brake cylinder on all cars. Squeeze the clip and let it come back on the cylinder before removing shoe. Tension applied by the clip will keep pistons in position preventing oil leakage and accidental displacement of parts. You save time by clipping one on each cylinder and leaving it in position until brakes are ready for re-assembly. Set of four Hydraulic Brake Clips.

No.	Weight
<b>ZT-1001</b>	12 oz.

## BENDIX BRAKE SPRING TOOL

This tool works on Bendix and all other brakes having the spring hooked onto the pin. Socket end is slipped over pin and turned until grooved lip receives spring. Continuing the turning of the Brake Spring Tool removes the spring with little effort. To replace spring, opposite end of the Tool is hooked onto the post with end of spring riding tool shaft. Raising the socket end of the Tool tenses the spring and it slides down the Tool onto the post.

No.	Weight
<b>ZT-1003</b>	2 oz.

## BRAKE TOOLS

These Brake Tools are forged of tough alloy steel. Angles on the Spoons are at the correct pitch to assure proper performance.

No.	Width of Blades	Length	Weight
<b>ZT-1005</b>	1/2"	7 1/2"	4 oz.

Small Brake Spoon for late model Chevrolet cars and others similarly equipped with narrow brake slots.

No.	Length	Weight
<b>ZT-1006</b>	6"	2 oz.

Large Brake Spoon for adjusting the star nut on two-shoe Bendix Brakes and other models.

No.	Length	Weight
<b>ZT-1008</b>	8 1/2"	3 oz.

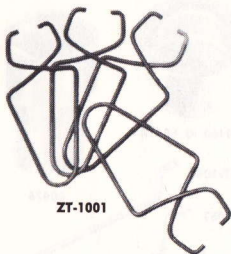
Designed for service work on most types of Bendix Brakes. Special angle and shape of ends fits the job correctly — does away with makeshift tools, saves time and effort.

No.	Length	Weight
<b>ZT-1009</b>	8"	4 oz.

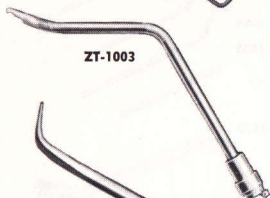
## SPRING COMPRESSOR

With the Brake Spring Compressor you can remove brake shoe hold-downs in seconds with complete safety. Place tapered end of Tool on steel cup. Hold end of pin with finger on opposite side on rear of back-up plate. Push in on tool until arrow head of pin is uncovered and give one quarter turn. Cup comes off spring easily and without danger to your fingers.

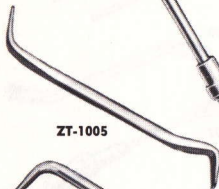
No.	Weight
<b>ZT-1010</b>	4 oz.



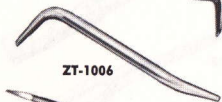
**ZT-1001**



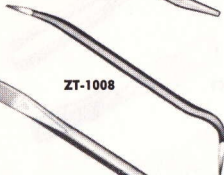
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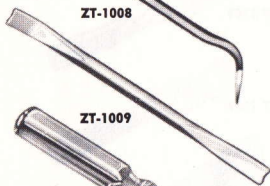
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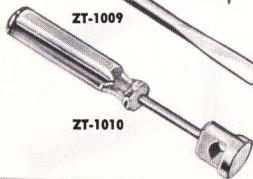
**ZT-1006**



**ZT-1008**



**ZT-1009**



**ZT-1010**

## PISTON AND RING SERVICE TOOLS

### RATCHET PISTON RING COMPRESSOR

Ratchet action provides positive compression and finger tip release. Deep enough to handle the modern four-ring piston — built of heavy spring steel to compress the stiffest rings evenly. Lower edge beaded.

Number		Capacity	Wgt.
ZT-1252	Passenger Car	2 1/8" to 5"	8 oz.
ZT-1253	Truck & Tractor	3 1/2" to 6 1/2"	12 oz.

### TRUCK-TRACTOR DIESEL COMPRESSOR

The giant 6 1/2" high Ratchet Compressor with four tension bands. Bands are clock spring steel and lower edge is beaded.

Number		Capacity	Wgt.
ZT-1254	Diesel Truck & Tractor	3 1/2" to 7"	1 1/2 lb.

### STANDARD PISTON RING COMPRESSOR

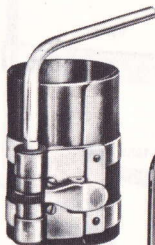
Beaded along lower edge to prevent Compressor entering cylinder and with dependable friction-type brake to hold rings in compression.

Number		Capacity	Wgt.
ZT-1255	Passenger Car	2 1/8" to 5"	8 oz.
ZT-1251	Special for Briggs & Stratton Motors		4 oz.

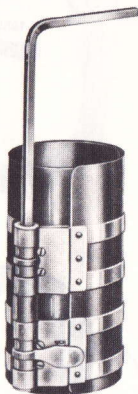
### PISTON RING GROOVE CLEANERS

Make easy jobs out of those that were formerly tedious and often injurious to pistons. Both Tools have durable compensating spring to control pressure on the cutter. With these two Tools you can service all cars with pistons up to 6" diameter. Complete with Cutter Blade.

Number	Length	Blade Size	Wgt.
ZT-1260	11 1/2"	3/32", 1/8", 5/32", 3/16"	6 oz.
ZT-1261	11 1/2"	5/64", 3/32", 3/16", 3/32"	8 oz.
ZT-1260P-1	3/32", 1/8", 5/32", 3/16"	Replacement Blade	1/4 oz.
ZT-1261P-1	5/64", 3/32", 3/16", 3/32"	Replacement Blade	1/4 oz.



ZT-1252  
ZT-1253



ZT-1254



ZT-1255

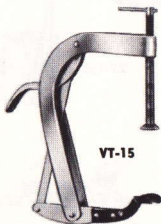
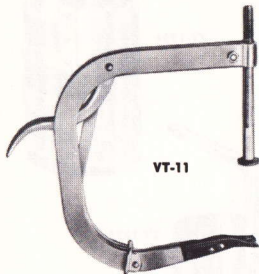
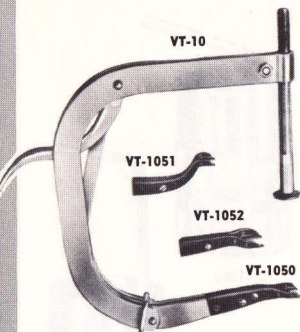


ZT-1251



ZT-1260  
ZT-1261





## "C" TYPE VALVE LIFTER

A practical Valve Spring Compressor for swift, efficient handling of stiffest valve springs. Handle positioned in "C" frame clears high fenders, hood and tie rods. Loose ring attachment on frame may be moved to hold tool locked in any desired position. Easily adjusts for any valve stem length. Slim, rugged jaws give maximum room to remove or replace valve keys. Inside depth of frame: 11½", inside width 8¼", with 10½" opening capacity using offset jaws. 11½" capacity using straight jaws. Allows enough clearance to use this unique Valve Lifter without removing manifold. Designed for use with Split Lock Replacer VT-1054.

No.	Length	Weight
<b>VT-10</b>	14"	6 lbs.
Includes VT-1050, VT-1051 and VT-1052.		

## EXTRA JAWS FOR VT-10

No.	Weight
<b>VT-1050 (Std.)</b>	½ lb.
<b>VT-1051 (Offset)</b>	½ lb.
<b>VT-1052 (Large)</b>	½ lb.

## HEAVY DUTY C TYPE VALVE LIFTER

Designed and built on the same principle as the one above. Especially useful on heavy duty work such as tractors, trucks, buses and marine and diesel engines. Takes springs from 1" to 2½" in diameter. Equipped with No.VT-1051 Offset Jaws, No.VT-1050 Straight Jaws and No.VT-1052 Large Straight Jaws. (Illustrated above with VT-10.)

Number	Size	Wgt.
<b>VT-11</b>	10½" x 12"	9 lbs. 8 oz.

## VALVE LIFTER FOR V-8 OVERHEAD VALVE ENGINES

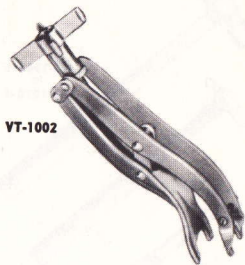
For easy one-man valve work on the new high compression car and truck engines with V-8 block and overhead valving. There's no need to remove the exhaust manifold for clearance. Compresses the new extra stiff springs without undue effort or dangerous flexing of the tool frame. Pin operated fine adjusting screw gives fast and easy control of spring compression. A balanced, easy handling lifter. Jaws furnished on tool have extra wraparound feature for safety — fit 1" to 2" dia. springs.

Part No.	Size	Weight
<b>VT-15</b>	8½" x 7"	6 lbs.

## "LITTLE HANDY" VALVE LIFTER

"Little Handy" Valve Lifter gets into tight corners and lifts stubborn springs with coil strength up to 300 lbs. — just twice the strength of any common spring you'll meet. Only 8½" long, but the screw-controlled jaws expand to 2½" and remain set in any position. Jaws adjust to various spring sizes and expand approximately parallel in vertical plane, lifting spring squarely and allowing easy replacement of valve stem keys.

Number	Length	Wgt.
VT-1002	8½"	1 lb. 4 oz.



VT-1002

## FORD V-8 AND MERCURY VALVE LIFTER

Do two jobs with this tool, it is dual purpose and thus you save money. Insert fork under valve guide, pull upward and remove horse shoe lock. Reverse tool, push down on handle and guide blocks come out. Forged of tough alloy steel, properly hardened and tempered.

No.	Length	Weight
VT-1003	24"	1 lb. 15 oz.

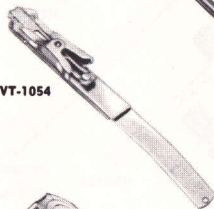


VT-1003

## SPLIT LOCK REPLACER

The perfect, compact Tool for replacing all split type valve keys on single and double-grooved valve stems and where the new convex locks are used. Requires a minimum of working space. Sliding base prevents keys dropping into motor. It's very simple to load. Designed for easy operation with VT-1002 Valve Lifter or "C" Type Lifter with VT-1050 straight jaws, or any good valve lifter.

Number	Length	Wgt.
VT-1054	8"	5 oz.

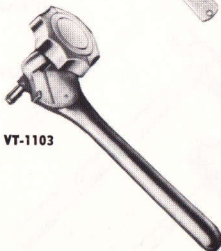


VT-1054

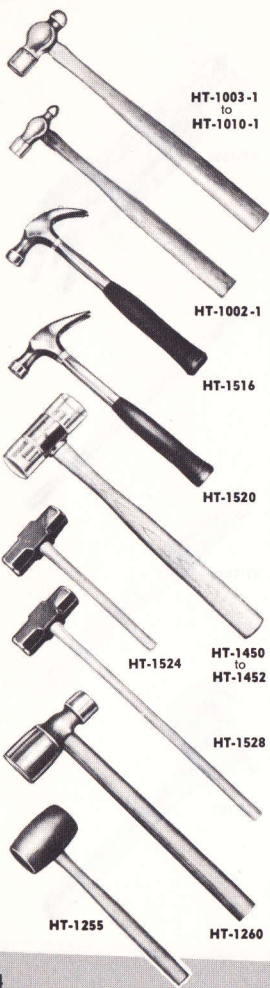
## VALVE TAPPET ADJUSTING TOOL

An amazing tool that cuts time in half in adjusting the tappets in all valve-in-head engines. Outmodes all similar tools in that it has a scale and pointer so that you can set the adjusting screw to the desired clearance. All guess work is eliminated — all adjustments are uniform and accurate. Worn and pitted rocker arms can be adjusted to operate quietly because the gap clearance is not determined by the feeler blade. If desired, can be used as ordinary adjuster — just disregard the scale. Made of strong, special alloy with high grade steel blade.

No.	Length	Weight
VT-1103	8"	7 oz.



VT-1103



**BALL PEIN**

A perfectly balanced Hammer with drop forged head and sturdy handle for a long life of service.

Number	Head Weight	Overall	Handle Number	Wgt.
HT-1003-1	8 oz.	13"	HT-1203-1	14 oz.
HT-1004-1	12 oz.	14"	HT-1204-1	18 oz.
HT-1005-1	16 oz.	14½"	HT-1205-1	22 oz.
HT-1006-1	20 oz.	15"	HT-1206-1	28 oz.
HT-1007-1	24 oz.	16"	HT-1207-1	30 oz.
HT-1008-1	32 oz.	16"	HT-1208-1	40 oz.
HT-1009-1	40 oz.	16"	HT-1209-1	50 oz.
HT-1010-1	48 oz.	16"	HT-1210-1	60 oz.

**GASKET HAMMER**

Necessary for work on gaskets where light, controlled contact is required.

Number	Head Ounces	Size	Overall	Handle Number	Wgt.
HT-1002-1	3½	6/0	11"	HT-1202-1	5 oz.

**ALL STEEL NAIL HAMMERS**

Heads are forged from special analysis steel and "super-heat-treated" twice for full strength and durability. Exclusive "rim-tempered" process assures greater safety and hardness on the rim of the hammer to prevent chipping when striking a foul blow — has a non slip CUSHION grip handle.

Part No.	Style	Weight
HT-1516	Curved Claw	16 oz.
HT-1520	Ripping Claw	16 oz.

**SOFT FACE HAMMERS**

Blackhawk Soft Face Hammers have a tough, molded plastic, replaceable head. This type Hammer is particularly useful in body and fender work.

Number	Head Ounces	Tip Diameter	Wgt.
HT-1450	6	7/8"	7 oz.
HT-1451	8	1"	8 oz.
HT-1452	12	1 1/16"	15 oz.

**TIPS FOR SOFT FACE HAMMERS**

Number		Wgt.
HT-1450T	Tip for Hammer HT-1450	2 oz.
HT-1451T	Tip for Hammer HT-1451	2½ oz.
HT-1452T	Tip for Hammer HT-1452	6 oz.

**SLIDGES — HAND AND HEAVY DUTY DOUBLE HEAD**

Blackhawk Sledges have fitted high grade hickory handles, power driven and machine wedged. Handles are finished with a clear lacquer.

Part No.	Length	Weight
HT-1524 (Hand)	16"	4 lbs.
HT-1528 (Heavy Duty)	32"	8 lbs.

**STEEL AND RUBBER HAMMER**

A very popular and handy tool, especially on body and fender work.

Number	Length	Wgt.
HT-1260	14"	2½ lbs.
HT-1261	Extra Rubber Heads	

**RUBBER Mallet**

High grade live rubber head molded on the handle which has corrugated ridges to doubly secure head on handle.

Number	Length	Wgt.
HT-1255	15"	20 oz.



## BODY TOOL EQUIPMENT

Ever-changing body styles require Tools that keep pace with these changes and assure accurate work. The professional mechanic appreciates new designs in this Blackhawk Line as soon as he feels the perfect balance of these Hammers. The new angles on the Hammer faces fit the new bodies perfectly — thus making better repairs easier, quicker and more profitable.

### SPECIAL BUMPING HAMMER

The small pein and flat polished head of this Hammer makes it a fine combination tool for driving up small dents and smoothing.

Number	Ounces	Head	Rd. Face	Point Radius	Length Pointed End	Wgt.
BT-1150	7	3 1/2"	1 1/16"	3/32"	7/16"	12 oz.

### LIGHT BUMPING HAMMER

For work on late model cars which have fenders of lighter weight steel, this Light Bumping Hammer is faster and safer.

Number	Sq. Face	Length Overall	Head Ounces	Head	Rd. Face	Wgt.
BT-1151	1"	12 1/4"	9	3 1/2"	1 1/4"	12 oz.

### DINGING HAMMER

A strong Hammer built to withstand the severe usage encountered in general bumping and dinging, including the high crown panels where heavier blows are necessary. The long head permits dinging over the obstructions where the shorter Hammers cannot reach.

Number	Head Ounces	Rd. Faces	Head Length	Wgt.
BT-1153	13	1 1/4" and 1 3/4"	6"	14 oz.

### SERRATED FACE SHRINKING HAMMER

A well balanced Shrinking Hammer with one serrated round face and one plain square face. Excellent for rough bumping on high and low crown surfaces. Round, serrated face is 1 1/4" dia. Square face is plain and 1 1/8" square. Head is 4" long.

No.	Weight
BT-1154	10 oz.

### FINISHING HAMMER

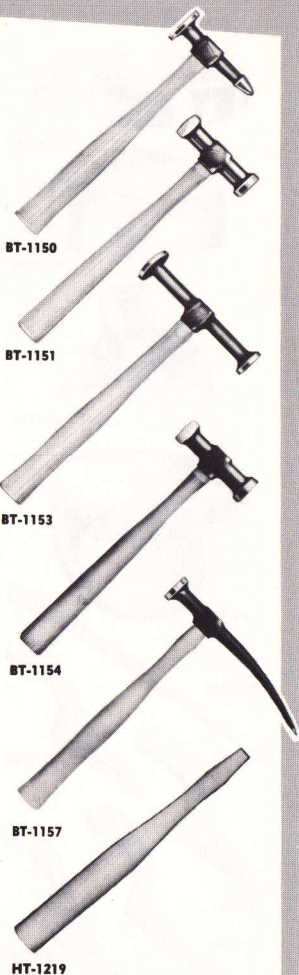
Another very popular Hammer because of the medium long point for working under fenders. For finishing work, it has a highly polished face, 1 5/8" in diameter.

Number	Ounces	Head	Rd. Face	Handle	Wgt.
BT-1157	9	6 3/4"	1 5/8"	11 1/2"	1 lb.

### HAMMER HANDLES

Handles are all made of first grade, second growth white Hickory. Have perfect, comfortable grip. Lacquered. Handles are 13" long for all Blackhawk Body Hammers.

No.	Length	Weight
HT-1219	13"	1 oz.



## DROP FORGED DOLLY BLOCKS

These Blackhawk Dolly Blocks are Drop Forged, from selected steel having extreme strength and ductility and are easy on the Hammer. Ground with the utmost care, finished and oil polished, for a smooth, perfect surface.

### TOE DOLLY BLOCK

This Dolly is very adaptable because of its thinness and length. It also has a large, perfectly flat face which is very useful in dinging lower hood quarters and other flat panels.

Number	Length	Width	Thickness	Wgt.
BT-1058	4 3/4"	2 1/4"	1 1/8"	2 1/2 lbs.

### HEEL DOLLY BLOCK

The design of this Dolly makes it very adaptable in corners and wide radii.

Number	Length	Width	Thickness	Wgt.
BT-1059	3 1/8"	2 3/8"	1 7/8"	2 lbs.

### GENERAL PURPOSE DOLLY BLOCK

Has several differently crowned working faces and two flanging and beading lips.

Number	Length	Width	Thickness	Wgt.
BT-1060	2 3/4"	3"	2 1/4"	2 1/4 lbs.

### FENDER DOLLY BLOCK

Especially useful on those extra heavy gauge truck and passenger car fenders which resist the blows of lighter DOLLIES. Fits the hand comfortably so that the fingers are protected from injury.

Number	Length	Width	Wgt.
BT-1070	3 1/4"	3 1/4"	3 1/4 lbs.

### PANEL CUTTER

Removes a very thin slice from panel. Is easily guided and turns in short radius. Projecting top rides on panel to prevent slipping through. Made of alloy steel, drop forged. 3/8" stock.

No.	Length	Weight
BT-1265	10"	4 oz.

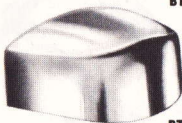
### SOLDER PADDLES

Made of choice hard maple for long lasting, clog-free service. Treated with tallow to preserve.

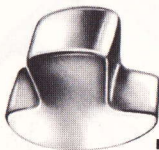
No.	Weight
BT-1380	Standard Solder Paddle, 4" x 1 3/8". 1 oz.
BT-1381	Bulldog Solder Paddle, 4" x 1 3/8". 2 oz.
BT-1382	Valley Solder Paddle, round 5" x 1". 1 oz.
BT-1383	Long Solder Paddle, 6" x 1 3/8". 2 oz.



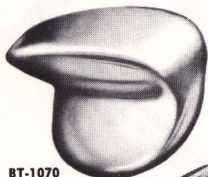
BT-1058



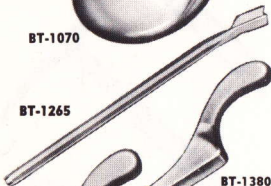
BT-1059



BT-1060



BT-1070



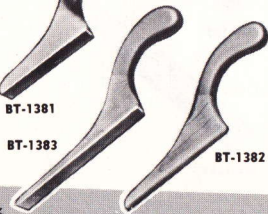
BT-1265



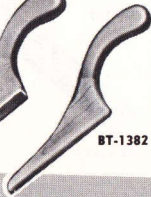
BT-1380



BT-1381



BT-1382



BT-1383

## HEAVY DUTY GEAR PULLERS

The Pullers illustrated and described on this page comprise a group which will handle the majority of pulling jobs a repair shop will be called upon to perform. Jaws and blocks are of drop forged chrome molybdenum steel, oil tempered to stand hard service. The Power-Pitch thread on the forcing screw provides one third more power than the conventional V-type thread.

### SENIOR GEAR PULLER

#### 8" MAXIMUM SPREAD

These Blackhawk non-slip Gear Pullers have a maximum reach of 5½" and will handle work up to 8" in diameter including flywheels, pulleys, gears and other parts where it is necessary to fit the arms between spokes where other Pullers cannot function. They apply a direct pull parallel with the center by virtue of their 3-point grip.

Number	Capacity Dia.	Wgt.
ET-1108-1	8"	5 lbs.

### TWO-ARM PULLERS

The Reversible Jaw type is especially applicable in the automotive field for removing bearings, small timing gears, pinions, and generator and magneto gears. The great advantage of these two units is that with them you actually have two Pullers in one since the jaws can be reversed.

#### WITH SINGLE ARMS

No.	Max. Length Reach	Max. Width Reach	Capacity Tons	Weight
ET-1008	5½	0 to 7	5	2 lb. 2 oz.
ET-1011	8½	0 to 10	9	4 lb. 14 oz.
ET-1013	10	0 to 12	15	10 lb. 7 oz.

### REVERSIBLE JAW GEAR PULLER

#### 8" MAXIMUM SPREAD

These two-jaw Pullers owe their popularity to the wide range of work they perform. The reversible arms provide thin grips at one end, which can be applied in restricted places; and slotted grips at the other, which conveniently engage cap screws where gears or parts having tapped holes are being removed. The wide range of work encompassed by this Tool embraces truck, bus, tractor and aircraft.

Number	Capacity Dia.	Wgt.
ET-1010	8"	4 lbs.

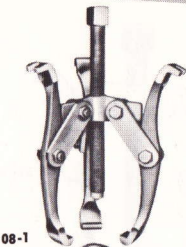
### JUNIOR GEAR PULLER

#### 6" MAXIMUM SPREAD

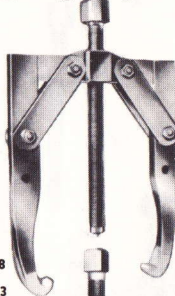
A smaller edition of Blackhawk Model ET1108-1 Wheel Puller. Made of the same quality materials, with adjustable arms and featuring the non-slip design wherein the tougher the pull the harder the grip.

Number	Capacity Dia.	Wgt.
ET-1105-1	6"	2½ lbs.

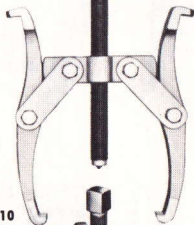
ET-1108-1



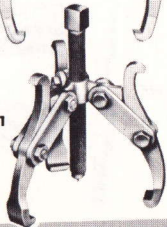
ET-1008  
to  
ET-1013



ET-1010



ET-1105-1





## REVERSIBLE GEAR PULLER 6" MAXIMUM SPREAD

A smaller size model of the Blackhawk No. ET-1010 Reversible Jaw Gear Puller which is especially popular where work includes removal of magneto and generator gears and bearings, timing gears, pinions and other small parts that are frequently difficult to remove. The reversible arms, readily changed by removal of link bolts, broaden the usefulness of this non-slip grip Puller.

Number	Dia. Spread	Wgt.
ET-1007	6"	1 3/4 lbs.

## MIDGET GEAR PULLER

The Midget Gear Puller has a patented gripping feature that affords many advantages. The thin jaws and their great strength give you a Tool that is at once Safe and Sure. The power-pitch threads on the forcing screw contribute more power than the conventional V-thread. ET-1005 is invaluable for pulling small gears, bearings, and armature arbors. It slips with ease through armature bearing races. Safer because it doesn't slip... the tougher the pull, the harder it grips.

Number	Capacity	Wgt.
ET-1005	4"	14 oz.

## ALL BLACKHAWK PULLERS ARE INTERCHANGEABLE

If you have a Two-Arm Puller you only need to get the three-way forged head and one arm assembly and you have a Three-Arm Puller. All parts of corresponding Pullers are interchangeable and thus you have the advantages of both types.

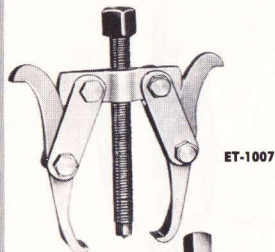
## WITH SINGLE ARMS

Number	Max. Length	Max. Width	Capacity	Weight
	Reach	Reach	Tons	
ET-1106	5 1/2	0 to 8	6	3 lb.
ET-1109	8 1/2	0 to 10	9	4 lb. 5 oz.
ET-1111	10	0 to 12	15	14 lb. 9 oz.

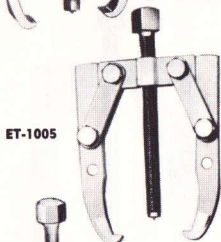
## TAPERED BEARING ATTACHMENT

Another exclusive and improved Blackhawk Tool design to assist automotive mechanics in doing better work, easier and more quickly. Not only will this Blackhawk Bearing Attachment perform every job of separating you'll be called upon to do, but it will do it surely and stand up under heavy work. The stud holes, spotted in the center of each jaw afford precise positioning of the two jaws of the Hub Puller. This Bearing Attachment is especially recommended for use with Blackhawk Hub Pullers Nos. ET-1156 ET-1010 and ET-1007

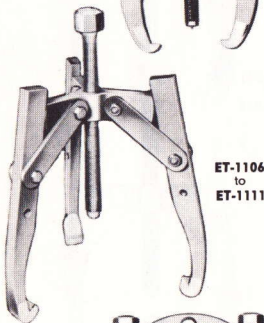
Number	Reach		Width	Use with Blackhawk Pullers No.	Use with Blackhawk Pullers No.
	Min.	Max.			
ET-1205	0	2 1/4	2 1/4	ET-1007, ET-1010,	ET-1322
ET-1207	0	4 1/4	4 1/4	ET-1010, ET-1013,	ET-1305
ET-1209	1	5 1/4	6	ET-1013, ET-1016,	ET-1310
ET-1211	1	9	6	ET-1013, ET-1016,	ET-1310



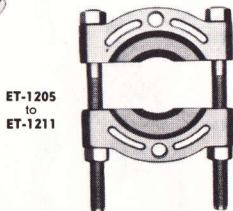
ET-1007



ET-1005



ET-1106  
to  
ET-1111



ET-1205  
to  
ET-1211

## FLANGE TYPE WHEEL PULLER

This Flange Puller covers all major cars and small trucks with flange type axles. The bold circle range is from  $4\frac{1}{2}"$  to  $5\frac{1}{2}"$ . The  $5\frac{1}{2}$  pound hammer with an overall length of 22" can also be used as a regular wheel and hub puller. Puller shipped with ET-1160-1 Yoke only. Shipping weight 10 lbs.

Number	Description
ET-1160	Complete Puller
ET-1160-1	Universal Yoke for Chevrolets, Pontiacs and Fords
ET-1160-2	Yoke for Valiant and Lancer
ET-1160-3	Adapter required to remove the Axle Shaft on Rambler and Chrysler products except Valiant and Lancer

## PILOT BEARING PULLER

Used to remove pilot bearings on motors, generators and magnetos. The hooked legs of the Puller are inserted behind the bearing and are spread by screwing down the long, main screw. Screw is locked in place by hexagonal nut on top plate. This prevents slipping of the legs. A few cracks of the sliding hammer and the bearing comes out. Jaw opening  $\frac{1}{2}"$  to  $1\frac{1}{2}"$ .

Number	Weight
ET-1068	3 lb. 15 oz.

## SLIDE HAMMER PULLER SET

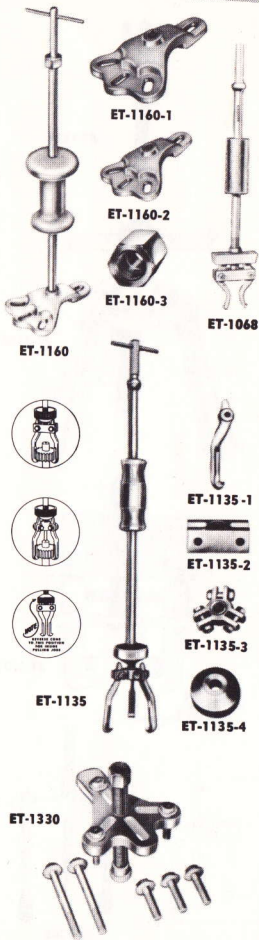
The Slide Hammer Puller Set shown at the left is a universal Tool that is easily and quickly adapted to outside and inside pulling operations. It can be used as a two-way or three-way puller by simply changing the Two-Way Block, ET-1153-2 to the Three-Way Block, ET-1135-3 and inserting Jaws, ET-1135-1 as shown in the small illustrations alongside the complete assembly. Reversing the Cone, ET-1135-4 arranges the Tool for inside pulling jobs. Your Slide Hammer Puller Set will find plenty of use in pulling gears, bearings, pinions, grease retainers, oil seals, bearing outer races and many other troublesome jobs. Capacity with 2-Jaws—Outside: 1" to  $4\frac{1}{2}"$ , Inside:  $1\frac{1}{4}"$  to  $3\frac{3}{4}"$ . Capacity with 3-Jaws—Outside:  $1\frac{1}{2}"$  to  $4\frac{1}{2}"$ , Inside: 1-5/16" to  $4\frac{3}{4}"$ .

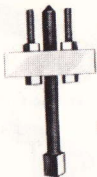
Number	Complete Slide Hammer Puller Set	Wgt.
ET-1135	including Slide Hammer Assembly,	8 lbs.
ET-1135-1	1 Puller Arm	1 lb.
ET-1135-2	Two-Way Puller Head	$\frac{1}{2}$ lb.
ET-1135-3	Three-Way Puller Head	$\frac{1}{2}$ lb.
ET-1135-4	Adjusting Cone	$1\frac{1}{4}$ lbs.
ET-1066	Slide Hammer Assembly Only	$4\frac{3}{4}$ lbs.

## HARMONIC BALANCER PULLER

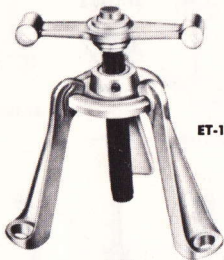
This puller is designed to pull Balancers, Vibration dampers, Pulleys or any gear with tapped holes. The four slots in the yoke, allow the use of this tool in either two or three hole applications. The Floating Swivel prevents damage to shaft ends. Included, are the necessary Side Screws — (3)  $\frac{3}{8}$ -24 x 2" — (3)  $\frac{3}{8}$ -18 x 2" — (2)  $\frac{3}{8}$ -16 x 4". Cadmium Plated.

Number	Weight
ET-1330	$2\frac{1}{2}$ lbs.

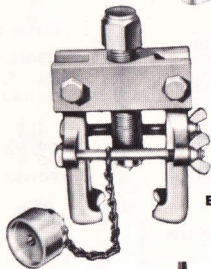




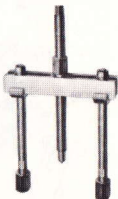
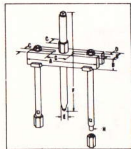
**ET-1322**



**ET-1156**



**ET-1077**



**ET-1305  
ET-1310**

## GEAR AND PULLEY PULLER

Designed for pulling timing gears, bearings and races on generators and other parts such as Chevrolet fan pulleys, etc. The slotted block permits a wide range of adjustments. The screw is long enough to reach through the crank hole and remove the fan pulley without dismounting the radiator. This Tool is especially useful when used with ET-1205 in many push-pull operations.

Number	Wgt
<b>ET-1322</b> Complete as illustrated with 6" Screw	1 1/2 lbs.
<b>ET-100322</b> 6" Screw for ET-1322	
<b>ET-1322P-3</b> 13" Screw for ET-1322	

## UNIVERSAL HUB PULLER

Here you have the best designed and most practical Hub Puller on the market today. This is because the sliding arms are easily and quickly adjustable to fit any type of hub regardless of the number of wheel studs used. Works on any wheel where hub bolt circle does not exceed 7 1/2".

Number	Weight
<b>ET-1156</b> Wheel Hub Puller Set	10 lbs.
<b>ET-1155</b> Replacement Leg	3 lbs.

## PITMAN ARM AND FORD HUB PULLER

A husky, powerful Puller designed specially for removing truck Pitman arms. Can be used on almost all makes of trucks. Does double duty in that it can also be used as a Ford Hub Puller. As illustrated, two shaft protectors are furnished with the Puller so that the shaft will not be marked or damaged in any way.

No.	Weight
<b>ET-1077</b>	5 lb.

## BLACKHAWK PULLERS

Used to remove or replace bearings, gears, pinions, pulleys, wheels or bushings. The interchangeable legs can be moved from side to side to accommodate any desired centers. Different length legs are available so that you have a tailor-made unit for your particular job. The legs are threaded on the ends as shown and can be used with such items as the tapped Puller Attachments.

## SPECIFICATIONS OF BLACKHAWK PULLERS

No. Complete Unit	A	B	C	D	E
<b>ET-1305</b>	8 1/4	1 3/8	2	1/2	* 5/8 - 18
<b>ET-1310</b>	13 1/2	2	3 1/2	3/4	1 - 14

No. Complete Unit	F	G	H	Weight
<b>ET-1305</b>	12	1		7 lb.
<b>ET-1310</b>	13	1 1/2	5/8 - 18	20 lb. 12 oz.

\* Pointed end threaded 5/8" SAE, 3/4" long. Balance of screw 3/4"-16 thread.

## PULLER LEGS AVAILABLE

No.	Length	Weight
<b>ET-1355</b>	6 3/4"	
<b>ET-1368</b>	9 1/2"	

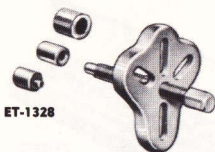


### STEERING WHEEL PULLER

Any steering wheel that is tapped to take cap screws can be easily and quickly removed with this new Steering Wheel Puller. Excellent too, for removing flanges, pulleys, etc. For use over a hollow shaft, a nipple is supplied to provide a base for the screw. Also includes Adapters for Buick and Chrysler Products.

Number  
**ET-1328**

Weight  
1 lb.



**ET-1328**

### UNIVERSAL JOINT TOOL

This tool removes and assembles Universal Joints on the majority of passenger cars and light trucks with a minimum amount of time and effort. The key to this method is in the use of the Special Adaptor which allows the bearing cups to be removed in one simple and fast operation. A horseshoe shaped spacer is provided for use on certain types of joints having a longer than normal skirt.

Part No.  
**ET-1329**

Weight  
5 1/4 lbs.



**ET-1329**

### BODY DENT PULLER

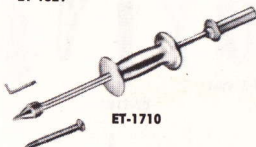
This time saving Dent Puller will remove auto body creases and dents easily without disturbing upholstery, headliners and body hardware. Removing inner panels of dented area is also eliminated. Punch or drill hole in dented panel, insert self-threading screw or hook and with a few raps of the sliding hammer return metal to its original shape. Sturdy plastic handle and cadmium finished body.

Part No.

Length  
13"

Weight  
4 lbs.

- ET-1710** Complete Tool
- ET-1710-1** Replacement Screw
- ET-1710-2** Replacement Hook
- ET-1710-3** Replacement Cone



**ET-1710**

### BATTERY TERMINAL AND GENERATOR BEARING PULLER

Designed to engage either below or on the sides of the cable terminals and lift even badly corroded terminals with no harm to the battery case or posts. The swivel is so versatile it also can be used as a generator bearing puller and magneto gear puller.

Number  
**ET-1071**

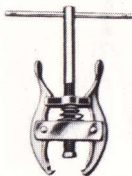
Wgt. Pkg.  
10 oz.

### SIMPLIFIED BATTERY TERMINAL PULLER

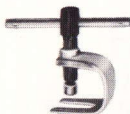
This drop forged, alloy steel, heat treated Puller is designed to pull the battery cable from the post without injury to cable or post. Slip jaws under terminal, turn handle and cable is loose. Jaws are wide enough and thin enough to handle majority of cars and trucks.

No.  
**ET-1700**

Weight  
6 oz.



**ET-1071**



**ET-1700**



**ZT-1550**

### SHOCK ABSORBER LINK SEPARATOR

It's always a tough job to separate shock absorber links and tie rod joints. Just insert the tapered wedge between the parts, hit the end of the tool with a hammer, and the part is off.

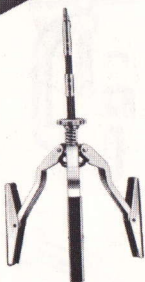
No.  
**ZT-1550**

Length  
12"

Weight  
1 lb. 4 oz.



ZT-2875



ZT-2190



ZT-2190-1



ZT-2195



ZT-2192



ZT-2192-1

**BUSHING REMOVER AND REPLACING SET**

Drives bushings from all passenger cars, buses and a large percentage of trucks and tractors.

**Drivers Included**

Number	Inside Diameter	Outside Diameter
ZT-2847	3/8"	1/16"
ZT-2848	13/32"	7/16"
ZT-2849	7/16"	1/2"
ZT-2851	1/2"	5/8"
ZT-2853	9/16"	1 1/16"
ZT-2853A *	37/64" — 5/8"	43/64" — 1 1/16"
ZT-2854	5/8"	3/4"
ZT-2855	1 1/16"	1 3/16"
ZT-2856 **	47/64" — 3/4"	55/64" — 7/8"
ZT-2857	13/16"	1 5/16"
ZT-2858 ***	55/64" — 7/8"	63/64" — 1"
ZT-2859	15/16"	1 1/4"
ZT-2860	1"	1 1/8"
ZT-2861	1 1/16"	1 3/16"
ZT-2862	1 1/8"	1 1/4"
ZT-2862A	1 3/16"	1 5/16"
ZT-2863	1 1/4"	1 3/8"
ZT-2864	No. 1 driver (small)	
ZT-2865	No. 2 driver (medium)	
ZT-2866	No. 3 driver (large)	
ZT-2867	No. 1 and 2 driver nut	
ZT-2868	No. 3 driver nut	

\*Will drive Chev. 6 water pump bushing.

\*\*Will drive Chev. 6 king bolt bushing.

\*\*\*Will drive Chev. 6 king bolt bushing (knee action type) and Chev. 6 piston pin bushing, size .866".

Set Number	Size of Box	Wgt.
ZT-2875	7 3/4" x 4 1/2" x 1"	4 lbs. 5 oz.

**DE-GLAZING TOOL**

This is the newest in de-glazing tools and consists of two cutting stones and one felt wiper. The compound arm curvature permits use of just one adjusting nut without collars to handle every size bore from 2" to 7" diameter with an extremely strong drive arrangement. Can be driven with an 1/4" to 3/8" electric drill.

Number	Description	Weight
ZT-2190	Tool Complete	1 lb. 4 oz.
ZT-2190-1	2 220 Grit Stones, 1 Felt Pad medium	
ZT-2190-2	2 400 Grit Stones, 1 Felt Pad fine	

**ADJUSTABLE HONE**

Adjustable to the tension wanted for the speed of cutting and wall finish desired. ZT-2192 Specifications— Adjustable abrasive stone hone — Capacity is 2" to 5 1/4" diameter Cylinders. Med. grit stones 3" long (2 with set) and 1 oil wiper pad.

Part No.	Description
ZT-2192	Complete Tool.
ZT-2192-1	Two 3" stones-medium grit, one felt wiper pad.
ZT-2192-2	Same except fine grit.

**BRAKE CYLINDER RESURFACING TOOL**

An all-purpose 280-grit hone designed for brake cylinder and recommended for resurfacing of small engines, up to 2 1/4" bore — lawnmowers, power saws, outboard motors. Offers fast, easy cutting with high or low-speed drills. Capacity is 3/4" to 2 1/4" diameter.

Number	Description	Weight
ZT-2195	Brake Cylinder Hone	
ZT-2195-1	Set of 3 Replacement Stones medium	8 oz.
ZT-2195-2	Set of 3 Replacement Stones fine	8 oz.

## CYLINDER RIDGE REAMER

A Ridge Reamer engineered to work perfectly on all type cylinders — angle block, short stroke; conventional; 3" to 5" range — WITHOUT READJUSTMENT.

Part No.	Range	Weight
<b>ZT-2175</b>	3"-5"	2 lbs. 10 oz.
<b>ZT-2175-1</b>	Carbide Cutter	½ oz.

## PRECISION PILOT REAMERS

You must see this Set to appreciate its great advantages in reaming King Bolt, Spring Shackle, Pitman Arm, Piston Pin, Water Pump and Tie Rod Bushings.

Number	Size	Number	Size
<b>ZT-3015</b>	1 1/16" to 3/4"	<b>±ZT-3019</b>	.915" to 1"
<b>*ZT-3016</b>	.730" to 13/16"	<b>§ZT-3020</b>	.985" to 1 1/16"
<b>ZT-3017</b>	1 3/16" to 7/8"	<b>ZT-3021</b>	1 1/16" to 1 1/8"
<b>†ZT-3018</b>	.860" to 15/16"		
<b>* ZT-3016</b> reams Chev. 6 King Bolt Bushing, size .735"			
<b>† ZT-3018</b> reams Chev. 6 Piston Pin Bushing, size .866"			
<b>‡ ZT-3019</b> reams Chev. 6 Truck King Bolt Bushing, size .922"			
<b>§ ZT-3020</b> reams Chev. 6 Piston Pin Bushing, size .991"			
Set. No.	Size of Box		Wgt.
<b>ZT-3007</b>	12 1/2" x 8" x 1 1/2"		12 lbs.

## THREAD RESTORER FILES

Restores damaged or rusted threads on bolts, studs or shafts.

Part No.	Length	Weight
<b>FT-1071</b> Thread Restorer File for 11, 12, 13, 14, 16, 18, 20 and 24 threads per inch.	10"	4 oz.
<b>FT-1072</b> Thread Restorer File for 9, 10, 12, 16, 20, 27, 28 and 30 threads per inch.	10"	4 oz.

## UNIVERSAL OUTSIDE THREAD CHASER

A time saver that will restore battered and damaged threads on axle housings, axle shafts, cages and similar units without removing them from the vehicle or assembly. Works on units from 1 1/4" to 5" outside diameter. Has 6 individual dies. Two of them have four cutting edges for 8, 10, 12 and 14 threads per inch and the other has 16, 18, 20 and 24 threads per inch. The four two sided dies are for 11-11 1/2, 4-5, 6-7, and 7 1/2-9 threads per inch.

Part No.	Weight
<b>DT-2661</b>	3 lb. 4 oz.

## RETHREADER DIE KITS

Part No.	Weight
<b>DT-98</b> Rethreader Die Kit with eight of the following USS-NC coarse thread sizes: 1/4", 5/8", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4"	9 oz.
<b>DT-99</b> Rethreader Die Kit with eight of the following SAE-NF fine thread sizes: 1/4", 5/8", 3/8", 7/16", 1/2", 9/16", 5/8", 3/4"	9 oz.

## SPARK PLUG THREAD CHASERS

These two Spark Plug Hole Thread Chasers cover all the popular spark plug size openings, insuring tightly seated plugs and accurate torque wrench readings.

Part No.	Weight
<b>DT-2655</b> Spark plug Thread Chaser with 10mm. and 14mm. threads.	2 oz.



**ZT-2175**



**ZT-3007**

**FT-1071**

**FT-1072**

**DT-2661**

**DT-98**

**DT-99**

**DT-2655**





Blackhawk torque wrenches are precision measuring instruments designed and manufactured to accurately measure torque. Their purpose is to give the pre-determined final tightness to screws, studs, bolts and threaded parts. Torque tools are used to determine this required tightness as well as to apply it. They are precision tools and should be handled as such.

## ROUND BEAM TORQUE WRENCH

This model features the special round bar measuring element. It is an accurate, reasonably priced torque wrench designed for service work in close quarters.

Number	Cap. Ft. Lbs.	Graduations	Length	Drive	Weight
<b>49820</b>	100	5	19 1/4"	1/2"	2 lbs.
<b>49825</b>	150	5	19 1/4"	1/2"	2 lbs., 2 oz.

## LOW CAPACITY INCH POUND TORQUE WRENCH

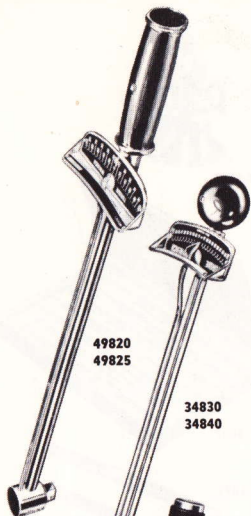
Graduations are in Inch Pounds on this model for accurate measurement of low capacities that are recommended for automatic transmission work. This wrench features the special round bar measuring elements that permits use in close quarters.

Number	Cap. In. Lbs.	Graduations	Length	Drive	Weight
<b>34830</b>	100	5	10"	3/8"	3/4 lb.
<b>34840</b>	200	10	11"	3/8"	3/4 lb.

## MICROMETER TORQUE WRENCH

One micrometer adjusting torque wrench: Torque value is preset. Wrench signals audibly when proper torque is attained. Popular for automotive engines, aircraft, and automatic transmission work. Avoid shearing by giving a pre-determined final tightness to screws, studs, bolts and threaded parts. Torque can be measured in either left or right direction which allows you also to measure "Back-Off" Torque. Because of the high capacity range of these, one wrench covers most applications. . . A special feature of the Blackhawk wrench. All Blackhawk torque wrenches are manufactured to federal standards and have been tested for 25,000 operations. Made of the highest quality heat-treated alloy steel. Parts are corrosion proofed. Individually carded.

Number	Drive	Capacity	Weight
<b>34870</b>	3/8"	100 ft. lb.	1 lb. 12 oz.
<b>49860</b>	1/2"	250 ft. lb.	2 lbs. 8 oz.



**49820**  
**49825**

**34830**  
**34840**



**49860**

**34870**

## HEAVY-DUTY RIGID FRAME DIAL TYPE TORQUE WRENCHES

These rugged wrenches have a removable lug which fits either upper or under side of wrench allowing operator to stand in normal position at all times to take dial readings. All Blackhawk Torque Wrenches work for either right or left hand threads. A second needle, called the "Tell-Tale Needle", remains at maximum torque after tension is released permitting careful check of reading after pulling has ceased. Shipped with metal storage case.

Extra Feature . . . Readings can be made in either ft. lbs. or meter Kilograms.

### 175 FOOT-POUNDS CAPACITY 1/2"-DRIVE

This is the torque wrench to use in tightening bearing caps, flanged connections and cylinder heads on marine and aviation engines, tractors and similar equipment.

Number	Length	Grad.	Weight
49969	19"	5' lbs.	2 lbs.

### 600 FOOT-POUNDS CAPACITY 3/4"-DRIVE

This capacity range has wide adaptability in power plants, the diesel engine field, steam fitting work and in many operations in the marine, railway and petroleum fields. Furnished with removable handle.

Number	Length	Grad.	Weight
69969	44"	10' lbs.	7 lbs.

### 1000 FOOT-POUNDS CAPACITY 1"-DRIVE

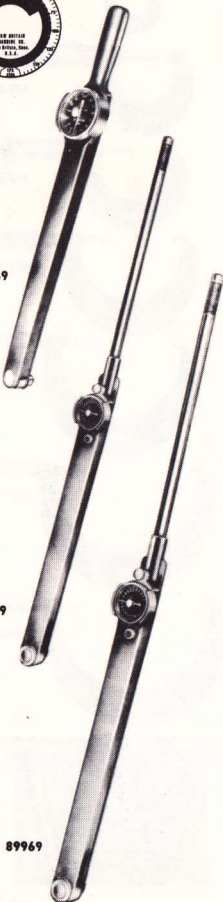
This is the giant of the torque wrenches developed for big jobs such as the refinery, railway, marine, power plant and other fields. Furnished with removable handle.

Number	Length	Grad.	Weight
89969	51"	25' lbs.	22 1/2 lbs.



49969

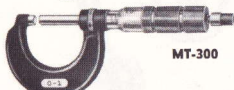
69969



89969



**MT-304**



**MT-300**



**MT-302**



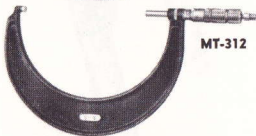
**MT-306**



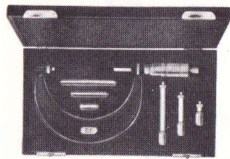
**MT-308**



**MT-310**



**MT-312**



**MT-320S**

## MICROMETERS

These Blackhawk precision measuring instruments have forged steel frames, enameled, satin chrome finish. Friction stop and clamp ring locknut. All micrometer sets are packed in compact sturdy cases.

## BALL ANVIL MICROMETER

Ball anvil micrometer for measuring bearing inserts, tubing, and other curved surfaces.

Part No.

**MT-304**

Measuring range: 0"-1"

Graduations: .001"

## OUTSIDE MICROMETER

Part No.

**MT-300**

Measuring range 0"-1"

Graduations: .001"

## OUTSIDE MICROMETERS

Part No.

**MT-302**

Measuring range: 1"-2"

Graduations: .001"

## OUTSIDE MICROMETER

Part No.

**MT-306**

Measuring range: 2"-3"

Graduations: .001"

## OUTSIDE MICROMETER

Part No.

**MT-308**

Measuring range: 3"-4"

Graduations: .001"

## OUTSIDE MICROMETER

Part No.

**MT-310**

Measuring range: 4"-5"

Graduations: .001"

## OUTSIDE MICROMETER

Part No.

**MT-312**

Measuring range: 5"-6"

Graduations: .001"

## RANGE MICROMETER

This micrometer is ideal for measurements within the 0" to 4" range in automotive repair work. Comes complete with three individual adjustable extensions, and is fitted with knurled collar for easy handling.

Part No.

**MT-320S**

Range: 0"-4"

Graduations: .001"



## SPECIAL AUTOMOTIVE MICROMETER

Special designed micrometer for measuring connecting rod journals of most automobiles and trucks. Locating the graduations on the underside of the barrel eliminates removing the micrometer from its measuring position to take the reading.

Part No.

**MT-322-C**

Range:  $1\frac{1}{2}$ "- $2\frac{1}{2}$ "  
Graduations: .001"  
2" standard test gage



**MT-322-C**

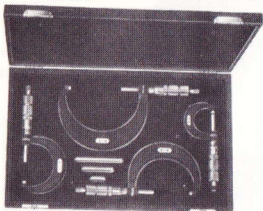
## SET OF OUTSIDE MICROMETERS

Complete set of four outside micrometers, graduated in thousandths. Packaged in a compact sturdy case.

Part No.

**MT-330-S**

For measurements from 0" to 4"  
0"-1" enameled frame  
1"-2" enameled frame  
2"-3" enameled frame  
3"-4" enameled frame



**MT-330-S**

## INSIDE MICROMETER

Furnished complete with knurled auxiliary extension handle.

Part No.

**MT-332-S**

Measuring range:  $1\frac{1}{2}$ "-8"  
Graduations: .001"

**MT-334-S**

Measuring range:  $1\frac{1}{2}$ "-12"  
Graduations: .001"

**MT-332-S**

**MT-334-S**

## DEPTH MICROMETER

Graduations are placed right side up and can be easily read while in use. Both base and measuring rods are hardened, ground, and lapped.

Part No.

**MT-336-S**

Range: 0"-3"  
3 measuring rods  $\frac{1}{8}$ " in diameter  
Base:  $\frac{7}{16}$ " x  $2\frac{1}{2}$ "  
Graduated: .001"

**MT-336-S**

## DIAL TEST INDICATOR SET

Set consists of precision made jeweled indicator; 3 contact points; 12" sectional rod for holding indicator; hole attachment for checking bores, concentricity; clamp for attaching indicator to machines, plates; universal rod connector for connection indicators to rods; cap for hole, attachments; 5" tool post holder for use with lathes. Also can be used in automatic transmission work for determining backlash, and play, concentricity, alignment, out-of-round conditions.

Part No.

**MT-338-S**

Range: 0"- $.200$ "  
Calibrated to 0"- $.100$ ", in  
increments of .001"

**MT-338-S**

## BLACKHAWK TOOL DISPLAYS

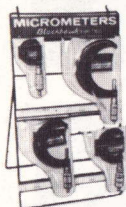
Use these versatile displays on Counter, Walls or Pegboards



DT-2

### DRILL DISPLAY

Actual tests show jobber sales have increased 400% with this pilfer-proof HIGH SPEED DRILL DISPLAY. Cabinet measures 13" x 16" x 8". Part No. DT-2.



BX-5

### MICROMETER DISPLAY

**MT-300** Outside Micrometer has a measuring range of 0"-1" and graduations of .001". Extra feature includes a friction stop and clamp ring locknut.

**MT-302** Outside Micrometer has a measuring range of 1"-2" and graduations of .001". Extra features include satin chrome finish and friction stop and clamp ring locknut.

**MT-306** Outside Micrometer has a measuring range of 2"-3" and graduations of .001". Extra features include forged steel frame and friction stop and clamp ring locknut.

**MT-308** Outside Micrometer has a measuring range of 3"-4" and graduations of .001". Extra features include enameled, friction stop and clamp ring locknut.

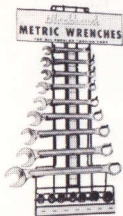


BX-3

### IMPACT SOCKET DISPLAY

**IMPACT SOCKET DISPLAY** holds 11 different 1/2"-Drive 6 Point Impact Sockets. Can be displayed on counter, peg board, or mounted on wall. A 7/16" Socket is included free to offset cost of display. Part No. BX-3.

Part No.	Size	Part No.	Size	Part No.	Size
UW-1614	7/16"	UW-1622	1 1/16"	UW-1630	1 5/16"
UW-1616	1/2"	UW-1624	3/4"	UW-1632	1"
UW-1618	9/16"	UW-1626	13/16"	UW-1634	1 1/16"
UW-1620	5/8"	UW-1628	7/8"		



BX-2

### METRIC TOOL DISPLAY

This **METRIC TOOL DISPLAY** holds metric Sockets and metric Combination Wrenches. Display is suitable for counter, peg board, or mounting on walls. Part No. BX-2.

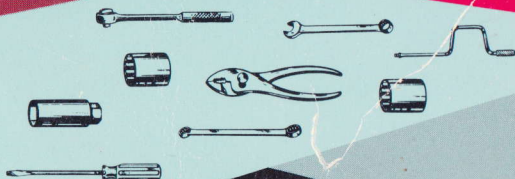
Sockets	Size M.M.	Sockets	Size M.M.	Sockets	Size M.M.
32009M	9	32012M	12	32015M	15
32010M	10	32013M	13	32017M	17
32011M	11	32014M	14	32019M	19
Comb. Wrenches	Size M.M.	Comb. Wrenches	Size M.M.	Comb. Wrenches	Size M.M.
BW-1109M	9	BW-1113M	13	BW-1119M	19
BW-1110M	10	BW-1114M	14	BW-1121M	21
BW-1111M	11	BW-1115M	15	BW-1122M	22
BW-1112M	12	BW-1117M	17		

### TABLE OF STANDARD SIZES OF BOLT HEADS, NUTS AND SCREWS



### DECIMAL AND METRIC EQUIVALENTS OF FRACTIONAL INCHES





**BLACKHAWK Hand Tools**  
**The New Britain Machine Company**  
**New Britain, Connecticut · U. S. A. 06050**

